

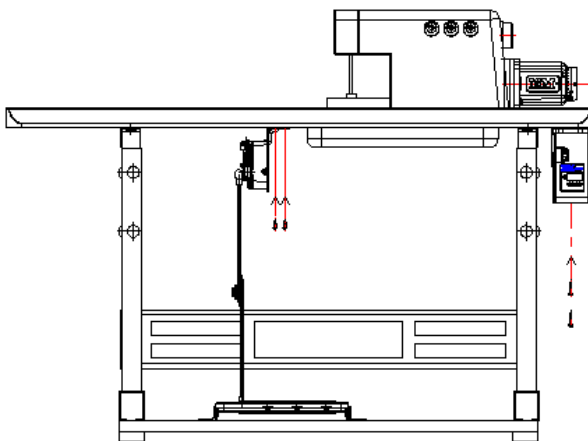
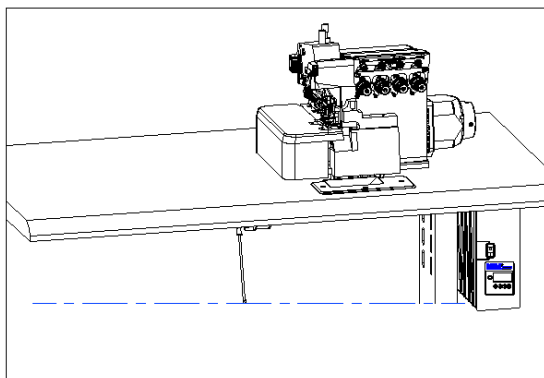
I For safe operation

安全與注意事項：

- 1.1 Prior the use of this product, please read the instruction Manual. Keep this Instruction Manual and the user may read it at anytime when necessary.
使用本產品前,請先閱讀本說明書,並保管說明書以便查閱。
- 1.2 Before turn on the power, be sure to check the power voltage and phase agreeing with the nameplate that indicated in the control box.
電源開啟前,請先確認電源的電壓與相數,是否與控制箱銘牌相符。
 - * The operated voltage should follow the nameplate with $\pm 10\%$ range.
 - * 使用電壓,須依銘牌標示 $\pm 10\%$ 範圍內使用
- 1.3 Grounding the machine is always necessary for safe and normal operation.
為了正常安全運轉,須安裝地線與接地工程。
- 1.4 Check lubricating oil prior to operation.
操作前,請先確認縫紉機潤滑油充足。
- 1.5 Check that rotational direction of the motor is correct prior to operation.
首次送電,請先低速運轉確認馬達轉動方向。
- 1.6 So as to prevent personal injuries during operation, be careful not to allow your head and hands to come close to the moving parts. Also never try to stop it with external forces.
運轉中切勿觸碰動作部位;亦不可以外力,強制停止動作部位。
- 1.7 For the following conditions, turn off the power or disconnect the power plug from receptacle:
下列情況,應關閉電源或拔下電源插頭:
 - * For threading needle or replacing bobbin.
 - * 穿線和更換旋梭時。
 - * To plug or unplug any connectors from control box.
 - * 插拔控制箱上任何連接線與接頭時。
 - * For maintenance and repairing.
 - * 保養與維修時。
 - * When machine is not at use, inspected or adjusted.
 - * 翻抬針車頭,取下皮帶時或機器不用時。
 - * When lightning and thunder occurs.
 - * 打雷閃電時。
- 1.8 Operating environment
使用環境
 - * Operating environment temperature $5^{\circ}\text{C}\sim 45^{\circ}\text{C}$.
 - * 使用環境溫度 $5^{\circ}\text{C}\sim 45^{\circ}\text{C}$
 - * Operating environment humidity $30\%\sim 95\%$.
 - * 使用環境濕度 $30\%\sim 95\%$
 - * Not close to high frequency or heat sources (such as electric heater).
 - * 不可靠近高週波或熱源(如電熱器)
 - * Dew, corrosive gases, and dust places should be avoided.
 - * 有露水、腐蝕性氣體、粉塵多等場所,皆應避免
 - * Indoor use only, avoid the direct sunlight.
 - * 僅限室內使用,不可直接日照
- 1.9 Warranty and maintenance
保固與維修
 - * The warranty period of the product is 12 months from the date of manufacture.
 - * 本品保固期為出廠月份起 12 個月
 - * Warranty void if improper use / man-made damage / voltage abnormal / bad grounding / self-dismantling / self-repair.
 - * 不當使用/ 人為損壞/ 電壓異常/ 接地不良/ 自行拆解/ 自行維修 均不保固
 - * Warranty void if foreign matter into / natural disasters / lightning / salt corrosion / damp / fall / self-transport damage.
 - * 異物進入/ 天災/ 雷擊/ 鹽蝕/ 潮濕 / 摔落/ 自行運送損壞 均不保固
 - * Repair parts should be provided by our company / maintenance person should be approved by our company.
 - * 維修零件須由本司提供/ 維修人員需由本司認可

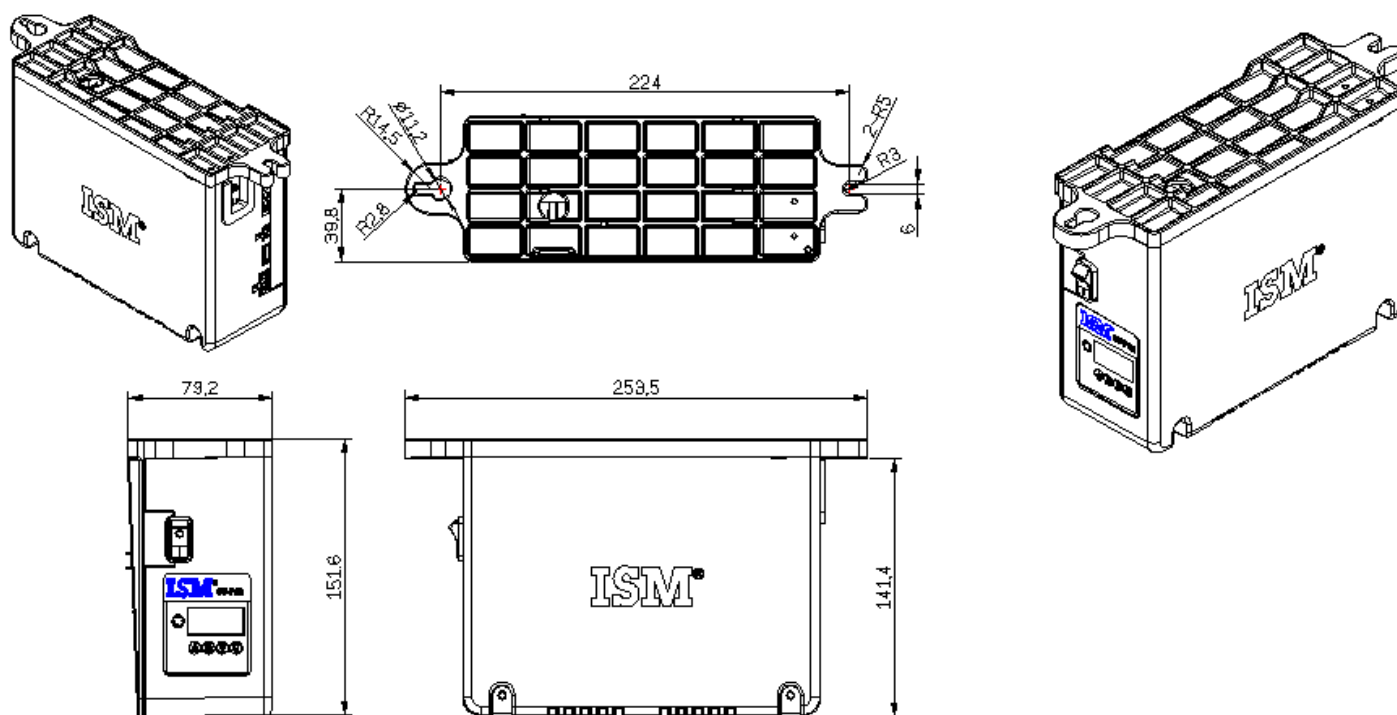
II. For control box set up

控制箱的安裝:



Dimensions of control box as shown in Fig.1

控制箱的外型尺寸如圖(一)所示: ↓



III.Connector Diagram

接頭定義圖

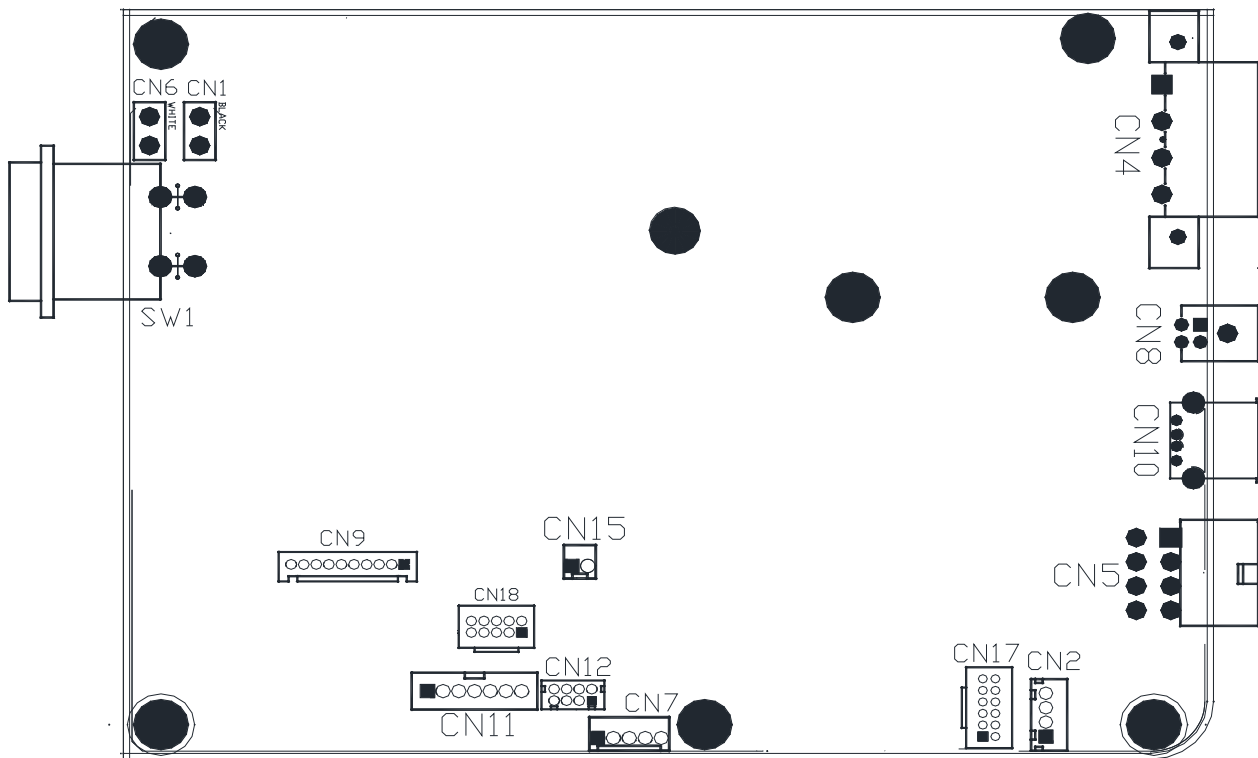


Fig.1(圖一) CTL BOARD Connector

Connector 接頭	Connectors' description 接頭說明	Connector 接頭	Connectors' description 接頭說明
CN1,CN6	AC power input connector 外部電源輸入接頭	CN10	USB Programming connector USB 程式燒錄接頭
CN2	Synchronizer connector 同步器接頭	CN11	External panel connector 選針盒接頭
CN4	Motor power line connector 馬達動力線接頭	CN12	Debug connector 除錯用接頭
CN5	Motor encoder connector 馬達編碼器接頭	CN15	LED lighting Power output connector LED燈電源輸出接頭
CN7	Display Panel connector 顯示面板排線接頭	CN17	Machine functions' connector 車頭功能線圈接頭 Pin1:CAL_ED Pin2&4:+5V Pin3:IN_E Pin5:IN_B Pin6:IN_A Pin7:IN_J Pin8&10&12: 0V Pin9:+24V
CN8	Speed unit connector 速度基座接頭	CN18	Standing operation pedal connector 立式踏板接頭
CN9	Machine functions' connector 車頭功能線圈接頭 OUT_A: Pin1&2 OUT_B: Pin3&4 OUT_C: Pin5&6 OUT_D: Pin7&8 OUT_E: Pin9&10		

IV. How to set 設定方法

4.1 Panel Button Definitions

面板按鍵定義:

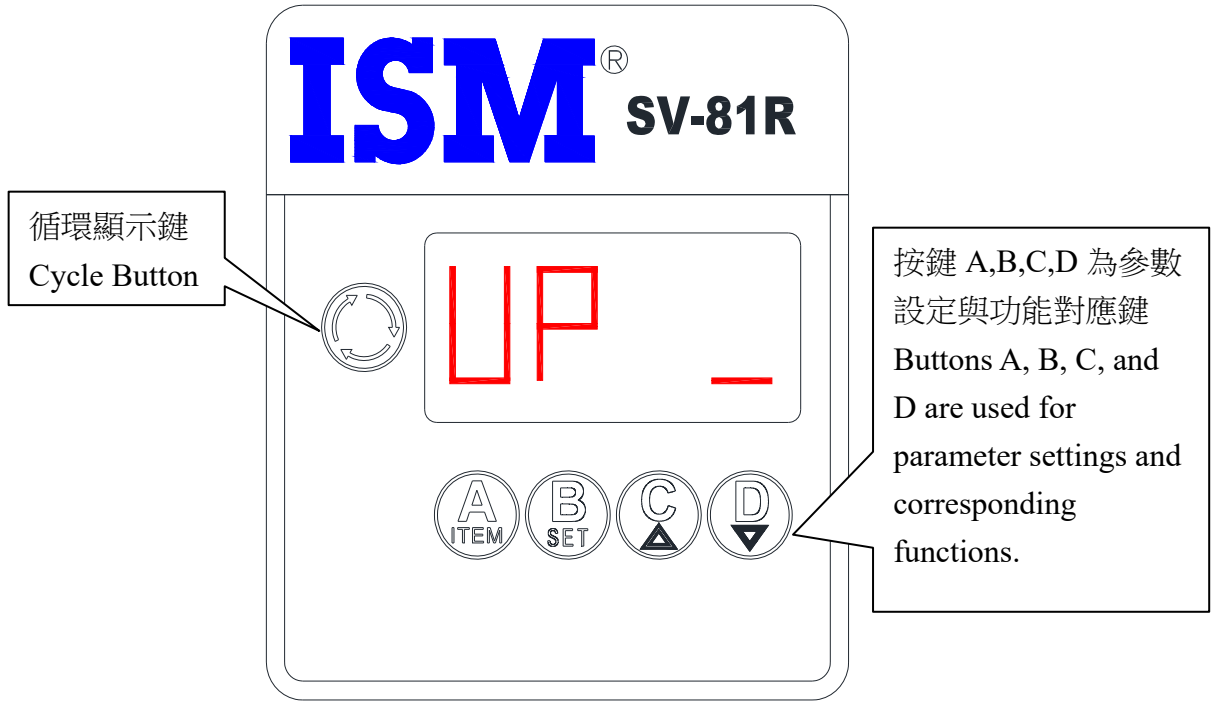


Fig2.A (圖二 A) Display Panel 顯示面板

4.2 How to set the parameter

參數設定方式



1. Turn on the power by pressing the cycle button, or long-press the cycle button in normal using mode.

1. 按循環鍵開電，或是在正常模式下長按循環鍵。

2. Release the button when the screen displays the sewing mode, then it will display the parameter number.

2. 畫面顯示車頭選項後放開，即進入參數模式。

3. Short pressing the button A can increase the parameter number by 1. Long pressing the button A can decrease the parameter number by 1.

3. 短按  鍵參數項目+1，長按  鍵參數項目-1。



4. Press the button B to enter the content value of the parameter.

4. 按  鍵進入該參數項目內容值。

5. Press the button C and D can increase or decrease the content value of the parameter.

5. 按   鍵增加減少項目內容值。

6. Short pressing the button A can return to the parameter list. Long pressing the button B can save.

6. 短按  鍵可回到參數項目，或長按  鍵儲存。

7. After turning off the power, turning on the power again can return to the sewing mode.

7. 關掉電源後，再開啟電源可重新回到車縫模式。


4.3. How to select the sewing mode :

選擇針車頭選項:

1. Turn off the power.

1. 關掉電源.



2. Hold down the B button, and simultaneously turn on the power until the screen displays "rEST," and then release the button. It will display the sewing mode option.

2. 按住  鍵, 同時打開電源, 直到畫面出現 rEST 才將按鍵放開出現車頭選項畫面。



3. If the displayed screen is different from the above, please repeat steps 1-2 again.

3. 如果顯示畫面與上述不同，請重覆步驟 1~2。

4. Keep Press the button A and select the sewing mode to be set, and then press the button B for two seconds to save it and after that will display the motor type option.

4. 按  鍵, 選擇要設定的針車模式後，按下  鍵兩秒存儲並進入馬達選項畫面.

5. Press the button A to select the correct motor type, and then press the button B for two seconds to save.

5. 按  鍵, 選擇要設定的馬達型號後，按下  鍵兩秒存儲.

6. Turn off the power, and then turn power on. The control box will reset the all value of parameter as draft setting basic on instruction manual.

6. 關掉電源，再打開電源，將以說明書上參數的初始值來運作.

	Machine Type	針車型式		Motor Type	馬達型式
TT	FACTORY TEST	工廠測試用車頭	d8	SM7-3570 motor	SM7-3570 馬達
46	Flatseaming machine	4 針 6 線併縫車+電眼+斬刀+吸風+吸線頭	db	SM7-5070 motor	SM7-5070 馬達
B3R	Yamato B3R device	大和 B3R 裝置	dA	SM7-6560 motor	SM7-6560 馬達
DL87	Juki DDL87 lockstitch	Juki DDL87 平車	U4	SM -4550 motor	SM -4550 馬達
F8TK	Chainstitch +SH fast cutter +suction +FL	三本車+新輝快速斬刀+吸風+壓腳	d3	SM6-5550 motor	SM6-5550 馬達
FJTK	Chainstitch +SH fast cutter +suction +FL For Juki	三本車+新輝快速斬刀+吸風+壓腳(Juki 用)	d2	SM6-5535 motor	SM6-5535 馬達
JY	JY machine	甲宇針車	U6	SM80-6535 motor	SM80-6535 馬達
OL	Overlock+cutter +suction+FL	拷克車+斬刀+吸風+壓腳	U5	SM80-5535 motor	SM80-5535 馬達
P8CS	Siruba Chainstitch VC008+under trimmer+blower+Condense stitch+tension release	三本車+切線+吹線+鬆線+密縫+壓腳	45	SM72-4550 motor	SM72-4550 馬達
			55	SM72-5535 motor	SM72-5535 馬達
P8TK	Chainstitch +SH cutter +suction +FL	三本車+新輝斬刀+吸風+壓腳	65	SM72-6535 motor	SM72-6535 馬達
			dC	SM7-4050 motor	SM7-4050 馬達
P8UT	Siruba Chainstitch VC008+under trimmer+wiper+Condense stitch+latch	高林三本車 VC008+切線+撥線+密縫+鎖線	d9	SM7-3570V2 motor	SM7-3570V2 馬達
			dE	SM7-5560 motor	SM7-5560 馬達
PB	Postbed+suction+FL	羅拉車+吸風+壓腳	d6	SM6-6535 motor	SM7-6535 馬達
PJTK	Chainstitch +SH cutter +suction +FL for Juki	三本車+新輝斬刀+吸風+壓腳(Juki 用)	dJ	SM7-4550 motor	SM7-4550 馬達
			dM	SM9-6560 motor	SM9-6560 馬達
			dN	SM6-4550 motor	SM6-4550 馬達
SC	Overlock +sensor +cutter +thread suction +waste suction +FL	拷克車+電眼+斬刀+吸線頭+集塵+壓腳	do	SM7-4050 motor	SM7-4050 馬達
			dq	SM8-7535 motor	SM8-7535 馬達
SOST	Overlock +sensor +side cutter + tension release +suction +FL	拷克車+電眼+側刀+鬆線+集塵+壓腳	dL	SM7-6535 motor	SM7-6535 馬達
SOTK	Overlock +sensor +cutter +thread suction +waste suction +FL	拷克車+電眼+斬刀+吸線頭+集塵+壓腳			
SSTK	Same as SOTK but using cutter safety sensor	同 SOTK 車頭選項搭配斬刀電眼裝置			
YU2	Chainstitch + TOP /Under trimmer +FL+suction	三本車+上撥線+底剪線+壓腳+集塵			
YU3	Chainstitch +TOP blower +Under trimmer +FL+suction	三本車+上吹針線+底剪線+壓腳+集塵			


4.4. How to switch the function screen

功能畫面切換:

In normal working mode, the screen displays the positioning point.

在平常工作模式，畫面顯示定位點，

Press the cycle key button to enter the following screens:

按下  鍵依序進入以下畫面

1.A If the machine has tape cutter function, the screen shows C3B3. Pressing the button B can switch the tape cutter mode. Pressing the button D can switch the thread suction mode.

0: No tape cutter or suction

1: Front tape cutter or front suction

2: Rear tape cutter or rear suction

3: Front and rear tape cutter or front and rear suction



1.A 若是有斬刀功能車頭，畫面顯示 C3B3，按下  鍵切換斬刀模式，按下  鍵切換吸線頭模式。

0:沒有斬刀或吸線頭 1:前斬或前吸線頭 2:後斬刀或後吸線頭 3:前後斬刀或前後吸線頭

1.B If the machine has a under trimming and thread wiper function, it will display ToWo. Pressing the button B can turn off or turn on the under trimming. Pressing the button D can turn off or turn on the thread wiper.

o: Function on, -: Function off

When the under trimming is off, the thread wiper will not operate.

1.B 若是有底切線和撥線功能車頭，畫面顯示 ToWo，按下  鍵關閉或開啟底切線，按下  鍵關閉或開啟撥線。 o: 功能開啟， -:功能關閉。
切線關閉時，撥線不輸出。




2.Speed Display Mode: When the sewing machine stops, the screen displays SP 0. When sewing, the screen displays the sewing machine's speed.

2.速度顯示模式:針車停止時，畫面顯示 SP 0，車縫時，畫面顯示針車轉速。

3.When the screen displays H000. The count resets automatically when the C000 increases everytime This function are counting the sewing stitch number from beginning to case end.

3.單件計針畫面顯示 H000，計件值加一時會自動歸零。

4.When the screen displays C000, pressing the button C can increase the count by 1. Pressing the button D can decrease the count by 1. Holding the button A for 2 seconds can reset the count number.

4.計件值畫面顯示 C000，按  鍵→計件值增加 1，按  鍵→計件值減少 1 按  鍵 2 秒→計件值歸零

5.Total motor running time displays r000. Hold the button A for 2 seconds to reset the motor running time.

5. 馬達運轉時間畫面顯示 r000，按  鍵 2 秒，馬達運轉時間歸零。

6.If the machine has tape cutter with rear sensor, the calibration mode will display CA on the screen. Pressing the button D can calibrate. If successful, the screen shows CAOK. If it fails, the screen shows CANG.

6.若是有斬刀選項，斬刀電眼校正模式畫面顯示 CA，按下  鍵校正，成功畫面顯示 CAOK，失敗顯示 CANG。



4.5. How to display Historical Error Message

錯誤歷史顯示:



1.Turn off the power.

1.關掉電源，



2.Turn on the power while holding the button C and D together. It will appear ERROR.

2.按住   鍵，同時打開電源.出現 ERROR

3.Release the button C and D. The screen will display the last error code.

3.放開   鍵.顯示畫面出現 最後出現的錯誤訊息代碼

4.Press the button C and D to display the last six error messages.

4.按  or  鍵來顯示最近所發生的 6 次錯誤訊息

4.6. How to set the Neutral Point of the Pedal Sensor

速度基座中立點設定模式:

1.Turn off the power.

1.關掉電源

2.Place the Pedal Sensor at the neutral point. Turn on the power while holding the button A. It will appear OFST.

2. 速度基座置於中立點，按住  鍵，同時打開電源.出現 OFST。

3.Release the button A. It will appear the recording value of the Pedal Sensor.

3.放開  鍵，畫面會出現速度基座的讀值。

4.The screen will display two statuses: out of range, or within the right range (37~55).

4.顯示器有兩種表示狀況：超過設定範圍、範圍內(37~55)。

5.Pressing the button B can calibrate the Pedal Sensor

5.按下  鍵可做速度基座校正。

6.If "— — or — —" keeps appearing, it indicates that the neutral point of the Pedal Sensor is too far off. Need Adjust the neutral point of the Pedal Sensor and repeat step 4.

6.若一直出現“— — or — —”表示速度基座中立點的機構位置偏離太多，必須先調整速度基座中立點的機構位置，再重復上述步驟 4 的動作。

4.7 How to measure the Motor Pulley Ratio

馬達皮帶輪比量測


1. Turn on the power while holding the button C until the screen appears the previously stored pulley ratios. Then release the button.

1. 按住  鍵，同時打開電源直到畫面顯示之前儲存的皮帶輪比，放開  鍵。

2. Press the pedal front. The motor will run for 7 turns automatically to calculate the pulley ratio. If it keeps running means abnormal, turn off the power and check if the stop signals on the synchronizer or encoder.

2. 踏板前踩後，馬達將運轉 7 圈後，自動計算皮帶輪比。若是一直轉動不停請關掉檢查同步器或編碼器上停點訊號是否異常。

3. Press the button B and it will save the pulley ratio.

3. 按  鍵後，會將此一皮帶輪比儲存。

4. Restart the machine.

4. 請重新開機。

V. Error message indicator

錯誤訊息顯示

Error Code	Problem of Error	Check Items
Er-1 or Er-A	Synchronizer failure	-Encoder failure. -Synchronizer failure.
Er-2	Motor is not rotating	-Machine head is locked. -Motor is locked. -Motor power line or encoder line. is broken, or connector is loosen.
Er-4	Safety switch failure	-Failure in safety switch connection -Safety switch failure -Setting error for parameter C05
Er-5	Speed unit output failure	-Speed unit connector is loosen -Speed unit is broken -Connecting rod installation is incorrect
Er-7	Material edge sensor function is failed.	-Parameter B17 setting error -Material edge sensor not properly adjusted -Connector for material edge sensor is loosen - Material not properly settled through machine
Er-8	Setting max. speed & limited max. speed over the motor maximum speed.	-Parameter A00 setting value is too large -Motor pulley diameter is too small -Motor pulley ratio setting error
Er-9	Power transistor module is failed.	-Power module overheated -Short circuit or low voltage -Current is too high.

Er-C	Braking timing error	-Increase value of parameter N09 -motor encoder fails. -Synchronizer failure.
------	----------------------	---

錯誤代碼	錯誤內容	確認項目
Er-1 或 Er-A	同步器信號異常	編碼器訊號異常 同步器訊號異常
Er-2	馬達不動	針車頭鎖死 馬達鎖死 馬達接頭鬆脫(動力線與編碼器線)
Er-4	安全開關異常	安全開關接點異常 參數 C05 設定錯誤 自動運轉模式時後踩會出現 ER-4 報警，前踩踏板後放開踏板到中立點來繼續車縫。
Er-5	速度基座輸出異常	速度基座接頭鬆脫 連接桿安裝不適當 速度基座故障
Er-7	布端檢出功能異常	參數 B17 設定錯誤 布端檢出器調整不良 布端檢出器連接線鬆脫,斷線 待車物料擺放位置不適當
Er-8	最高轉速&限速設定 超過馬達的最快速度	參數 A00 設定值太大 馬達皮帶輪尺寸太小 馬達皮帶輪比設定錯誤
Er-9	功率晶體模組故障	功率晶體模組過熱 短路低電壓 電流太大 馬達線圈阻抗太小
Er-C	踏板放開後設定時間內馬 達未停到定位點	增加參數設定中 N09 的值 編碼器訊號異常 同步器訊號異常

VI. Parameter List

參數一覽表

No 項目	Item 內容	Range 範圍	Unit 單位	DL87	YU3	SSTK	SOST
A00	Sewing machine maximum speed 針車最高速度	200 ~ 7000	*1 spm	4000	5500	4500	4500
If input voltage are under AC 220V, sewing machine maximum speed may not reach. 若輸入電壓低於 220V，則可能會無法達到最高轉速設定。							
A01	Sewing machine positioning speed 針車定位速度	50 ~ 250	*1 spm	200	200	200	200
A02	Medium speed 中速	200~7000	*1 spm	5000	6000	6500	7000
A05	Motor's pulley dimension 馬達皮帶輪	50~125	*1 mm	75	65	50	50
A06	Machine's pulley dimension 針車皮帶輪	50~125	*1 mm	75	65	50	50
A07	Pulley ratio setting mode 皮帶輪比的設定	ON:From Meas: Refer motor pulley ratio measurement 參考馬達皮帶比量測的值 OFF:From Para:Refer A05&A06 參考 A05&A06 的設定	--	ON	ON	ON	ON
A08	Virtual needle down positioning function 虛擬下停功能	ON: With the function 有此功能 OFF: No such function. 無功能 (Note1)	--	ON	ON	ON	ON
A09	The angles between virtual needle down positioning point and needle up signal 虛擬下停點,由上停信號開始點起算	40 ~ 250	*1 °	145	150	180	180
A10	Soft start stitches 慢速啟動針數	0 ~ 19	*1 stitch	0	0	0	0

A11	Soft start speed 慢速啟動速度	250 ~ 2000 (note1)	*1 spm	400	400	400	400
A12	No synchronizer operation mode 沒有同步器操作模式	OFF.With Sync: ineffective 無功能 ON.W/O Sync: effective 有此功能(不會顯示E1)	--	OFF	OFF	OFF	OFF
A13	Motor rotating direction 馬達轉向	CW: Clockwise 順時針 CCW: Counter-Clockwise 逆時針	--	CW	CW	CW	CW
A14	Motor static brake function 馬達靜止煞車功能	0: No such function 無功能 1 ~ 4: The bigger value means the more powerful braking force. 有此功能, 設定值越大煞車力量越大	--	0	0	0	0
A15	Auto needle up positioning when POWER ON 開機自動上停	0: no such function 無功能 1: determine based on Upper signal 根據上停訊號判定 2:Motor runs until meeting the edge of Upper stop position when power on. 開機馬達轉動直到上停訊號邊緣	--	2	2	1	1
A16	Needle up function when pedal is heeled. 取消後踩上停功能	0.NDL UP@PH: With the needle up function when pedal is heeled 有踏板後踩提針功能 1.XX @PH: Cancel the needle up function when pedal is heeled. And just the foot lifting function is effective 取消踏板後踩提針功能只做舉壓腳動作	--	0	0	1	1

A17	Lock function 參數鎖定功能	UNLK : no such function 無此功能 LOCK : with the function 有此功能	--	UNLK	UNLK	UNLK	UNLK
A18	In auto test mode, motor running time adjustment 自動測試模式下，馬達運轉時間調整	10-2000	*10 ms	200	200	500	500
A19	In auto test mode, motor stopping time adjustment 自動測試模式下，馬達停止時間調整	10-2000	*10 ms	200	200	200	200
A20	Reversed revolution angles after pedal is heeled. 後踩反轉角度	0~250°	*1 °	0	0	0	0
B00	Pedal type 踏板類型	COIL PK-70 MP:Magnetic Pedal 磁感性踏板 GC1: Reserved 預留 GC2: Reserved 預留	--	COIL	COIL	COIL	COIL
B01	Pedal forward curve 踏板前踩曲線	1~5	--	1	1	1	1
B02	How many times undertrimming counting as one piece. 切線n次計次一件	1~255	--	1	1	1	1
B03	Speed Limitation 0 (Speed limitation Bit0 : 0, Bit1: 1) 限速0 (限速位元0 : 0, 位元1 : 1)	200~7000	*1 spm	2000	2000	2000	2000
B04	Speed Limitation 1 (Speed limitation Bit0 : 0, Bit1: 0) 限速1 (限速位元0 : 0, 位元1 : 0)	200~7000	*1 spm	1500	1500	1500	1500
B05	Speed Limitation 2 (Speed limitation Bit0 : 1, Bit1: 0) 限速2 (限速位元0 : 1, 位元1 : 0)	200~7000	*1 spm	1000	1000	1000	1000
B06	Speed step of 12-level pedal 12階踏板的速速間隔	200~1200	*1 spm	600	600	600	600
B07	The pedal stroke adjustment for motor rotating 馬達開始轉動的踏板行程調整	75-90	--	75	75	75	75
B08	Pedal stroke adjusts for motor accelerating 馬達開始加速的踏板行程調整	91-120	--	103	103	103	103

B09	Pedal stroke adjusts for foot lifter acting 壓腳開始動作的踏板行程調整	15-35	--	25	25	25	25
B10	Pedal stroke adjusts for start thread trimming 切線開始動作的踏板行程調整	1-10	--	5	5	5	5
B15	Operation Mode 運轉模式	0.MANUAL: 人工模式 1.SEMI-A: 半自動模式 A Machine auto-stop only depends on the parameter setting B18, without check the position of pedal. 腳踏板放開針車繼續運轉直到達到設定針數 B18 後停止 2.SEMI-B: 半自動模式 B Same as SEMI-A but check the position of pedal. 腳踏板放開馬達停止 3.AUTO: 自動模式 4.SEMI-P: 半自動模式 P Automatic sewing when pedal is pressed forward. 踏板踏下後，自動完成車縫程序。	--	0	0	2	2
B16	AUTO sewing delay time 自動車縫開始延遲時間	100~5000	*1 ms	100	100	2000	2000
B17	Motor remains stopped until material edge sensor input ON 布料進入後針車才能開始車縫	OFF: no such function 無此功能 ON: with the function 有此功能	--	OFF	OFF	OFF	OFF
B18	The stitches's number before motor stops when material edge sensor is off 布離開後幾針馬達停止	0~254 255:without the function 無此功能	*1 stitch	0	0	10	35
C00	Edge sensor function 電眼功能控制	OFF: Disable edge sensor 取消電眼功能 ON: Enable edge sensor 啟動電眼功能	--	OFF	OFF	ON	ON
C01	Edge sensor1 type 電眼 1 動作形式	LA/Dark On HA/Light On	--	HA	HA	LA	LA
C02	Edge sensor2 type 電眼 2 動作形式	LA/Dark On HA/Light On	--	HA	HA	HA	HA

C03	Edge sensor1 type 電眼 3 動作形式	LA/Dark On HA/Light On	--	HA	HA	LA	HA
C04	Edge sensor off debounce time 電眼結束防彈跳圈數	0~5	*1 stitch	3	3	3	3
C05	Safety switch A type 安全開關 A 形式	N.O.常開 N.C.常閉	--	N.O.	N.C.	N.O.	N.O.
C06	Safety switch A delay time 安全開關 A 保護延遲時間	20~500	*1 ms	400	500	400	400
D00	Thread SD mode 吸線頭模式	0.OFF: disable Thread SD output 取消吸線頭輸出 1.FRONT: front suction Thread SD acts when edge sensor ON 前吸風(吸線頭) 2.BACK: back suction Thread SD acts when edge sensor OFF 後吸風(吸線頭) 3.FT/BK: front & back suction 前後吸風(吸線頭)	--	3	3	3	3

D01	Thread SD_OUT ENERGY SAVING MODE 吸線頭_間隔吸風模式 Thread SD_OUT 節能模式	0.FT/BK: Only Front & Rear suction with material edge sensor 前吸後吸_電眼控制 1.FT/MD/BK: Thread SD_OUT acts depended on the setting of D06,D07 with material edge sensor 前吸後吸+間隔吸風_電眼控制, 根據參數 D06,D07 設定動作 2.Interval Thread SD_OUT acts depended on the setting of D06,D07 when motor rotates 間隔吸風_馬達控制 根據參數 D06,D07 設定動作 3.MO RUN: Thread SD_OUT acts when motor runs 長吸風_馬達控制 4.MTR FT/BK: Thread SD_OUT acts depended on the setting of D08 when motor begins to rotate and stops 前後吸_馬達控制 根據參數 D08 動作 5.Thread SD_OUT FT/BK + when material is out and motor rotates 前後吸+沒布料且馬達運轉時吸線頭動作	--	3	3	0	1
D02	Thread SD_OUT delays stitches' number after material edge sensor on 前吸線頭延遲針數	0~99	*1 stitch	0	0	0	0

D03	The Thread SD_OUT acts stitches' number after material edge sensor 1 on 前吸線頭針數 布端檢出器 1 開始動作 TS_OUT 動作針數	0 ~ 250 250 : infinite before ED1/ED2 turns OFF 在布端檢出器 1/2 結束前一直輸出	*1 stitch	0	0	17	18
D04	Thread SD_OUT delays stitches' number after material edge sensor off 後吸線頭延遲針數	0~99	*1 stitch	0	0	0	0
D05	The Thread SD_OUT acts stitches' number after material edge sensor 1 (or 2) off 後吸線頭針數 布端檢出器 1(或 2)結束動作 Thread SD_OUT 動作針數	0 ~ 249	*1 stitch	0	0	10	35
D06	Stitches number of Thread SD_OUT ON when energy saving 中間吸線頭針數	0~99	*1 stitch	0	0	5	5
D07	Stitches number of Thread SD_OUT OFF WHEN ENERGY SAVING 中間間隔吸線頭針數	0~990	*1stitch	0	0	100	100
D08	Thread SD_OUT acts time when motor stops 馬達停針後吸線頭動作時間	0~5000	*1 ms	0	0	0	0
E00	Waste SD mode 吸布屑模式	0.OFF: disable Waste SD output 取消吸線頭輸出 1.FRONT: front suction Waste SD acts when edge sensor ON 前吸布屑 2.BACK: back suction Waste SD acts when edge sensor OFF 後吸布屑 3.FT/BK: front & back suction 前後吸布屑	--	0	0	3	3

E01	Waste SD_OUT ENERGY SAVING MODE 吸布屑_間隔吸風模式 Waste SD_OUT 節能模式	0.FT/BK: Only Front & Back suction with material edge sensor 前吸後吸_電眼控制 1.FT/MD/BK: Waste SD_OUT acts depended on the setting of E06,E07 with material edge sensor 前吸後吸+間隔吸風_電眼控制, 根據參數 E06,E07 設定動作 2.Interval: Waste SD_OUT acts depended on the setting of E06,E07 when motor rotates 間隔吸風_馬達控制 根據參數 E06,E07 設定動作 3.MO RUN: Waste SD_OUT acts when motor rotates 長吸風_馬達控制 4.MTR FT/BK: WSD_OUT acts depended on Parameter E08 when motor begins to rotate and stops 前後吸_馬達控制 根據參數 E08 動作	--	3	3	1	0
E02	Waste SD_OUT delays stitches' number after material edge sensor on 前吸布屑延遲針數	0~99	*1 stitch	0	0	0	0
E03	The Waste SD_OUT acts stitches' number after material edge sensor 1 on 前吸布屑針數 布端檢出器 1 開始動作 Waste SD_OUT 動作針數	0 ~ 250 250 : infinite before ED1/ED2 turns OFF 在布端檢出器 1/2 結束前一直輸出	*1 stitch	0	0	3	1
E04	Waste SD_OUT delays stitches' number after material edge sensor off 後吸布屑延遲針數	0~99	*1 stitch	0	0	0	0

E05	Waste SD_OUT acts stitches' number after material edge sensor1 (or 2) off 後吸布屑針數 布端檢出器 1(或 2)結束動作 Waste SD_OUT 動作針數	0 ~ 249	*1 stitch	0	0	10	21
E06	Stitches number of Waste SD_OUT ON when energy saving 中間吸布屑針數	0~99	*1 stitch	0	0	5	5
E07	Stitches number of Waste SD_OUT OFF when energy saving 中間間隔吸布屑針數	0~990	*1 stitch	0	0	100	100
E08	Waste SD_OUT acts time when motor stops 馬達停針後吸布屑動作時間	0~5000	*1ms	0	0	0	0
F00	Front TR1 delay stitches' 前鬆線 1 延遲針數	0-99	*1 stitch	0	0	0	0
F01	Front TR1 acting stitches' 前鬆線 1 動作針數	0-99	*1 stitch	0	0	0	0
F02	Rear TR1 delay stitches' 後鬆線 1 延遲針數	0-99	*1 stitch	0	0	0	0
F03	Rear TR1 acting stitches' 後鬆線 1 動作針數	0-99	*1 stitch	0	0	0	0
F04	B3R 關閉延遲針數(車縫開始)	0~99	*1 stitch	0	0	0	0
F05	B3R 動作延遲針數(車縫結束)	0~99	*1 stitch	0	0	0	0
G00	Cutter output delays time after CUTTER SW is on CUTTER_SW 按鍵按下後，延遲斬刀動作時間	0~2500	*1 ms	300	300	0	300
G01	Thread SD_OUT acts time after CUTTER SW is on CUTTER SW 按鍵按下後，吸線頭動作時間	0~2500	*1 ms	1600	1600	0	1600

G02	Auto-Cutter function 自動斬刀功能	0.OFF: no such function 無此功能 1.Front: only front cutting (when edge sensor on) 前斬刀 2.Back: only back cutting (when edge sensor off) 後斬刀 3.FT/BK: front &back cutting 前後斬刀	--	3	3	3	3
G03	The Cutter output delays stitches after material edge sensor is on 前斬刀 Cutter 動作延遲針 數	0~99	*1 stitch	0	0	14	16
G04	The Cutter output delays stitches after material edge sensor is off 後斬刀 Cutter 動作延遲針 數	0~99	*1 stitch	0	0	0	20
G05	Cutter acts time 斬刀動作時間	0~250	*1 ms	80	80	80	80
G06	Repeated cutting times 斬刀動作次數	1-50	--	1	1	1	3
G07	The interval time between G06 斬刀動作間隔時間	0~250	*1 ms	80	80	80	50
G08	Decrease speed before Front cut 前斬前降速功能	OFF : no such function 無此功能 ON : with the function 有此功能	--	OFF	OFF	ON	OFF
G09	Decrease speed before Back cut 後斬前降速功能	OFF : no such function 無此功能 ON : with the function 有此功能	--	OFF	OFF	OFF	OFF
G10	CUT LSPD 斬刀降速速度	200~7000	*1 spm	200	200	800	800
G11	CUT TYPE 斬刀模式	0:NORMAL 斬線頭 1:TAPE CUTTER 斬布刀	--	0	0	0	0
G12	Function setting when Pedal is at 2nd position 後踩第二段時斬刀控制	0: no cutting function 無後踩斬刀 1:with cutting function 有後踩斬刀	--	0	0	0	0

H00	Foot lifter control mode 壓腳控制	0.Pedal: Pedal controls foot lifter 踏板控制壓腳 1.Auto-A: sensor control foot lifter 踏板+電眼 ED1 控制 2. RESERVED 保留 3.Pedal controls foot lifter after trimming 切完線後才可以踏板 控制抬壓腳 4. Auto-B: Same as Auto-A and auto footlifting when sewing procedure is over 同 Auto-A &完成縫製 後自動抬壓腳 5.Auto footlifter after trimming 切線後自動抬壓腳 6.Reserved 預留	--	0	0	1	1
H01	Confirming time for foot lifter acting level 壓腳動作準位確認時間	10-1000	*1 ms	90	70	90	90
H06	delay time of releasing AUTO FL after material edge sensor is on 感應布進來後自動壓腳釋 放時間	10~2500	*10 ms	10	10	80	80
H07	Footlifter auto-on function at FL control mode :AUTO-B when power on 在壓腳模式 AUTO-B 下， 開機自動抬壓腳致能	OFF/ON	--	OFF	OFF	ON	ON
H08	Delay time after footlifter is down 壓腳放下延遲時間	0~1000ms	*1ms	120	120	120	120
I00	Thread trimming delaying time for Interlock 切線延遲 時間_三本車用	0-2500	*1 ms	10	10	10	0
I01	Thread trimming acting time for Interlock 切線動作時間_三本車用	0-2500	*1 ms	100	100	100	0
I02	Thread wiping delaying time for Interlock 撥線延遲時間_三本車用	0-2500	*1 ms	120	120	120	0

I03	Thread wiping acting time for Interlock 撥線動作時間_三本車用	0-2500	*1 ms	750	750	750	0
I04	Footlifter delaying time for Interlock 壓腳延遲時間_三本車用	0-2500	*1 ms	50	300	50	0
I05	Thread wiping output control for Interlock 撥線輸出控制_三本車用	0:No output thread wiping 不輸出撥線 1:Output thread wiping 輸出撥線 2:Output thread wiping when foot lifter active 輸出撥線,切線後與壓腳同動	--	2	2	1	1
I06	Delay time before chainstitch tension release output acting 三本車紗拉組的輸出開始時間	0~2500	*1ms	0	0	0	0
I07	Acting time for chainstitch tension release output 三本車紗拉組的輸出時間	0~2500	*1ms	0	0	0	0
J00	Start condensing stitches' number 前密縫針數	0-50	*1 stitch	0	0	0	0
J02	Condensing sewing speed 密縫速度	500-2500	*1 spm	1800	1800	1800	1800
J03	End condensing stitches' number after pedel heeled 後踩密縫針數	0-50	*1 stitch	10	10	10	0
J04	Waiting time after End condensing stitch J03 後踩密縫針數 J03 後等待時間	0-2000	*1 ms	200	0	0	0
J05	Machine rotates turns after waiting time J04 等待時間 J04 後轉動針數	0-50	*1 stitch	10	2	2	0
J06	2ND End Condense stitches 第二次密縫針數	0~50	*1 stitch	0	0	0	0
J07	Running Stitches afeter H.3 第二次密縫結束車縫針數	0~50	*1 stitch	0	0	0	0
J08	Delay time before End Condense stitches 後密縫前延遲時間	0~250	*100ms	0	0	0	0
J09	Starting angle of Start condense stitches 前密縫開始角度	0~144	*5 °	72	72	72	72
J10	Tension releasing time of Interlock machine 三本車鬆線啟動時間	0~250	*1 ms	0	0	0	0

J11	Start tension releasing delay stitches of Interlock machine 三本車前鬆線延遲針數	0~50	*1 stitch	0	0	0	0
J12	1st tension releasing delay stitches of Interlock machine 三本車第一次鬆線延遲針數	0~50	*1 stitch	0	0	0	0
J13	2nd tension releasing delay stitches of Interlock machine 三本車第二次鬆線延遲針數	0~50	*1 stitch	0	0	0	0
J14	Condense stitch outputs until UTL function is completed 密縫輸出持續到 UTL 鬆線前	OFF/ON	--	OFF	OFF	OFF	OFF
J15	Angle of Start Tension release for Condense stitch 前鬆線角度 密縫用	0~360	*1	270	270	270	270
K00	UTL latch delay time UTL 鎖線延遲時間	2-20	*10 ms	2	2	2	2
K01	UTL latch acting time UTL 鎖線輸出時間	0-200	*10 ms	10	10	10	10
K02	Delay time between UTL OFF and start sewing UTL 結束到轉動前延遲時間	0-20	*10 ms	10	10	10	10
K03	Sewing speed after UTL UTL 鎖線後轉動速度	500-2500	*1 spm	1800	1800	1800	1800
K04	Stitches' number after UTL UTL 鎖線轉動圈數	2-9	*1 stitch	2	2	2	2
K05	UTQ Latch acting time UTQ 鉤線動作時間	0-2500	*1 ms	0	100	0	0
K06	UTQ Limit switch acting time UTQ 鉤線限位動作時間	0-2500	*1 ms	0	40	0	0
K07	UTQ latch end angle UTQ 鉤線結束角度	80-110	*1 °	80	82	80	80
K08	Delay time before UTQ latch acting again UTQ 鉤線第二次開啟延遲時間	0-250	*1 ms	0	120	0	0
K09	2 nd acting time of UTQ latch UTQ 鉤線第二次開啟時間	0-100	*1 ms	0	6	0	0

K10	Second opening angle of UTQ limit switch device. UTQ 限位開關第二次開啟動作角度	180-250	*1 °	180	200	180	180
K11	Running speed of the last UTQ stitch. UTQ 最後一針鎖線速度	200-500	*1 spm	200	200	200	200
L00	Backtack switch max. on time 回針按鍵最長動作時間	1~30	*1 s	12	12	12	12
L01	Backtack power off time 回針保護禁動時間	1~30	*1 s	6	6	6	6
L12	Back tacking switch function 回針按鍵功能	BTSW: Control back tacking solenoid 控制回針線圈 FLIP: Control back tacking solenoid, by flip-flop type output 以flip-flop方式控制回針線圈	--	BTSW	BTSW	BTSW	BTSW

Note1. This value depends on motor specification. 根據馬達規格會有不同的值

Note2. Reserved 預留功能