

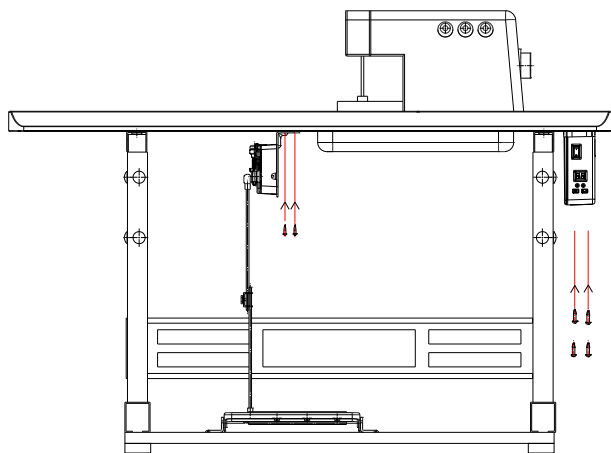
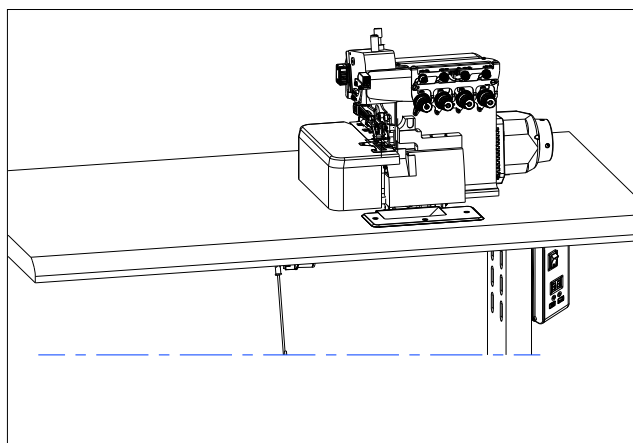
I For safe operation

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%~95%.
 - * 使用環境濕度 30%~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:

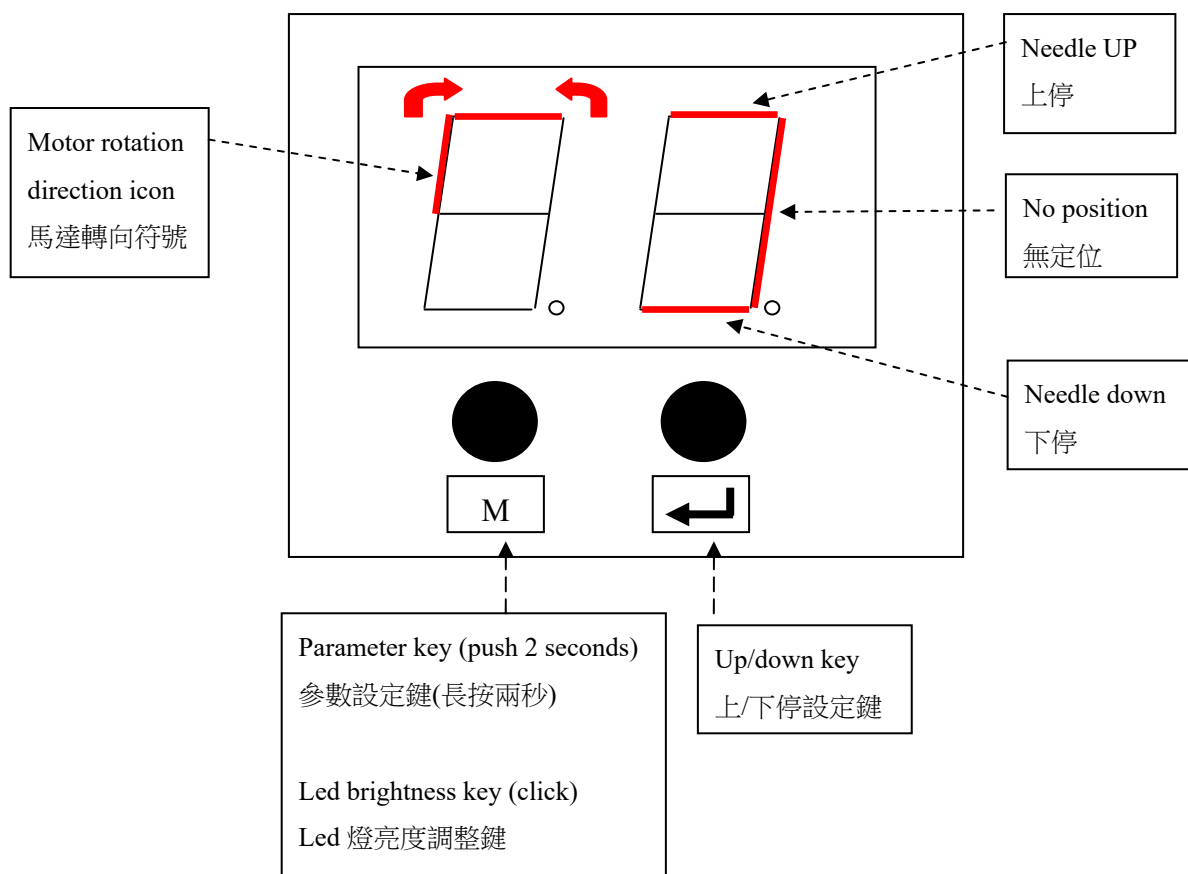


III. Operating way for control box panel

控制箱面板按鍵操作說明

3.1. For regular operations (Turning the power switch on without pressing any button)

一般操作(不按任何鍵下開機)



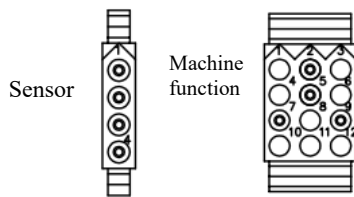
3.1.2 Control box connector panel

控制箱接頭說明

Connector Description :

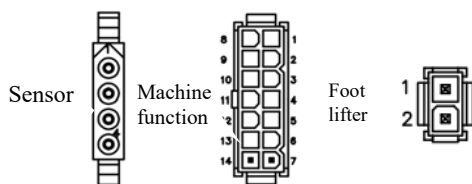
接頭定義圖:

CF-55-2 Type1



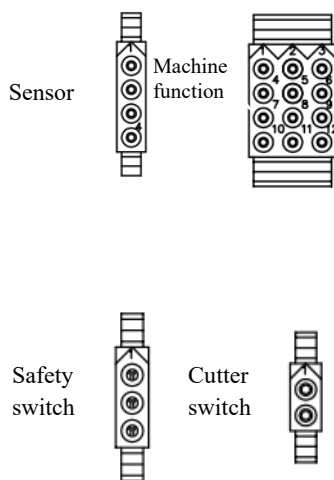
Connector	Function description	NO.	Description
Machine function	Waste suction	2	+24V
		5	Output C
	Foot lifter	9	+24V
		7	Output A
Sensor	Sensor	1	+24V
		2	Sensor 1
		3	Sensor 2
		4	0V

CF-55-2 Type2



Connector	Function description	NO.	Description
Machine function	Waste suction	7	+24V
		14	Output C
Sensor	Sensor	1	+24V
		2	Sensor 1
		3	Sensor 2
		4	0V
Foot lifter	Foot lifter	1	+24V
		2	Output A

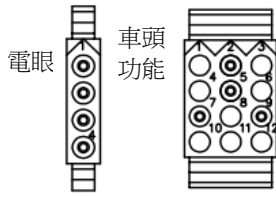
CF-55-4 Type



Connector	Function description	NO.	Description	
Cutter switch	Cutter switch	1	0V	
		2	Cutter switch	
Safety switch	Safety switch	1	+5V	
		2	Safety switch	
		3	0V	
Machine function	Cutter	3	+24V	
		1	Output D	
	Waste suction (TK) Tension release (ST)	2	+24V	
		5	Output C	
	Thread suction (TK) Waste suction (ST)	6	+24V	
		4	Output B	
	Foot lifter	9	+24V	
		7	Output A	
	Sensor	Sensor	10	+5V
			11	Sensor 3
12			0V	
1			+12V	
Sensor	Sensor	2	Sensor 1	
		3	Sensor 2	
		4	0V	

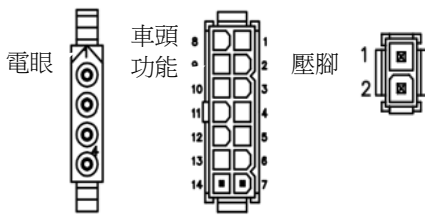
接頭定義圖：

CF-55-2 樣式一



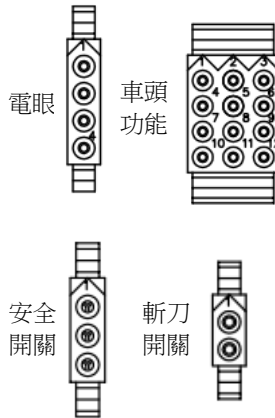
接頭	功能定義	NO. (樣式一)	定義
車頭功能	吸布屑	2	+24V
		5	輸出 C
	壓腳	9	+24V
		7	輸出 A
電眼	電眼	1	+12V
		2	電眼 1
		4	0V

CF-55-2 樣式二



接頭	功能定義	NO. (樣式二)	定義
車頭功能	吸布屑	7	+24V
		14	輸出 C
電眼	電眼	1	+12V
		2	電眼 1
		4	0V
壓腳	壓腳	1	+24V
		2	輸出 A

CF-55-4 樣式



接頭	功能定義	NO.	定義
斬刀開關	斬刀開關	1	0V
		2	壓腳開關
安全開關	安全開關	1	+5V
		2	安全開關
		3	0V
車頭功能	斬刀	3	+24V
		1	輸出 D
	吸布屑(TK) 鬆線(ST)	2	+24V
		5	輸出 C
	吸線頭(TK) 吸布屑(ST)	6	+24V
		4	輸出 B
	壓腳	9	+24V
		7	輸出 A
電眼	電眼	10	+5V
		11	電眼 2
		12	0V
		4	0V
電眼	電眼	1	+12V
		2	電眼 1
		3	電眼 2
		4	0V

IV. Setting way

設定方式

4.1. Select the machine type and motor specification

選擇針車頭類型和馬達規格

STEPS

步驟

4.1.1. Press **M** and **↵** simultaneously, and turn ON the power until panel display “rS” then release the key.

同時按住 **M** 和 **↵** 鍵，同時打開電源，直到畫面出現“rS”才將按鍵放開。

4.1.2. Press **M** key, thus machine type will be cycled increased.

按 **M** 鍵則針車模式循環遞增。

4.1.3. Press **↵** key to save and enter motor specification selection.

選擇要設定的針車模式後，按下 **↵** 鍵進行儲存後則進入馬達規格選擇。

4.1.4. Press **M** key, thus motor specification will be cycled increased.

按 **M** 鍵則馬達規格循環遞增。

4.1.5. Press **↵** key to save.

選擇要設定的馬達規格後，按下 **↵** 鍵進行儲存。



4.1.6. Please restart the machine.

請重新開機。



	Machine Type 針車型式
OL	Overlock+ suction+FL 拷克車+集塵+壓腳
SC	OverLock +sensor +suction +FL 拷克車+電眼+集塵+壓腳
ST	Overlock with SING HUI side cutter 拷克車+電眼+集塵+壓腳+鬆線+側刀
TK	Overlock with SING HUI flat cutter 拷克車+電眼+集塵+線頭+壓腳+斬刀
TE	Overlock with SING HUI flat cutter 拷克車+雙電眼+集塵+線頭+壓腳+斬刀

4.2.Parameter setting(There are two ways can enter parameter setting.)

參數設定方式(有兩種方式可以進入參數設定)

4.2.1. Press  key and turn on the power until the panel display “PA”. Release  key, the panel display parameters number.(or)



按住  鍵，同時打開電源，直到面板顯示 PA，放開  鍵後面板會顯示參數號碼。(或)

4.2.2. In normal mode then press  key until the panel display “PA”. Release  key, the panel display parameters number.

在正常操作模式，按住  鍵，直到面板顯示 PA，放開  鍵後面板會顯示參數號碼。

4.3. Parameter Setting Key Description

參數按鍵定義

	
1. Press one time to increase Number. 2. Hold Press to decrease number	1. Press one time to enter Parameter or parameter value. 2. Press 2 Seconds to Save Parameter value
1. 按下一次後號碼循環遞增. 2. 長按 後號碼循環遞減.	1. 按一次進入參數或參數值 2. 長按兩秒 後將儲存參數資料.

V.Error message indicator

錯誤訊息顯示

Error Code	Description of error detected
E.1 or E.A	Synchronizer failure
E.2	Motor is not rotating
E.5	Speed unit output failure
E.8	Setting speed over the motor maximum speed
E.9	IPM is failed
E.0 or E.C	Braking timing error

錯誤代碼	錯誤內容
E.1 或 E.A	同步器信號異常
E.2	馬達不動
E.5	速度基座輸出異常
E.8	最高轉速設定超過馬達的最快速度
E.9	功率晶體模組故障
E.0 或 E.C	煞車時間異常

VI. General Parameter List

常用參數一覽表

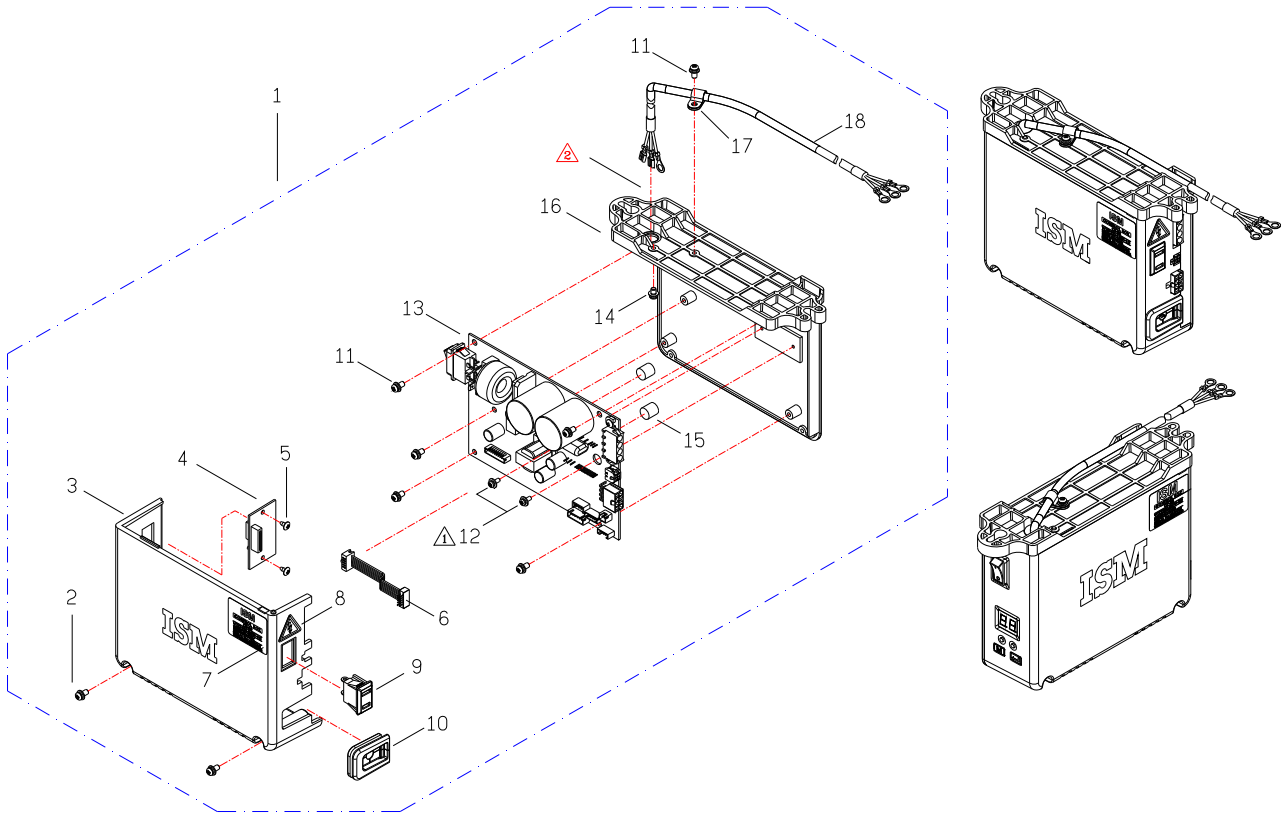
No.	Item	Range	Unit	OL	SC
P1	Sewing machine maximum speed	2 ~ 70	*100 spm	60	60
P6	Virtual needle down positioning function	ON: With the function OFF: No such function.	--	ON	ON
P7	Virtual needle down positioning function	0 ~ 250 (note1)	*1°	180	180
F2	Motor rotating direction	C Clockwise CC: Counter-Clockwise	--	C	C
F5	Decelerating speed slope choice	1 ~ 15 The bigger value means the longer time of decelerating.	--	41	41
L1	Auto needle up positioning when POWER ON	OFF: no such function ON: with the function	--	ON	ON
L.7	The thread suction stitches' number (front suction)	0 ~ 250 250 : Infinite	*1 stitch	17	18
L.8	The thread suction stitches' number (back suction)	0 ~ 249	*1 stitch	0	35
L.9	Waste suction device energy saving mode	0: FT/BK 1: .FT/MD/BK 2: Interval when motor rotates 3. MO RUN: acts when motor runs 4: FT/BK when motor rotate 5: material is out and motor rotates	--	0	1
C.0	Stitches number of thread suction on when energy saving	0~99	*1 stitch	10	5
C.1	Stitches number of thread suction off when energy saving	0~99	*10 stitch	1	10
C.2	Stitches' number of front waste suction	0 ~ 250 250 : Infinite	*1 stitch	3	1
C.3	Stitches' number of back waste suction	0 ~ 249	*1 stitch	10	21
C.4	Waste suction energy saving mode	Same as L9 ietm0~4	--	1	0
C.5	Stitches' number of waste suction when energy saving	0~99	*1 stitch	5	5
C.6	Stitches number of waste suction off when energy saving)	0~99	*10 stitch	10	10
C.7	Cutter output delays time after CUTTER SW is on CUTTER SW	0~250	*10 ms	0	30
C.8	Thread SD_OUT acts time after CUTTER SW is on CUTTER SW	0~250	*10 ms	0	160
C.9	The Cutter output delays stitches after material edge sensor is on	0~99	*1 stitch	14	16
J.0	The Cutter output delays stitches after material edge sensor is off	0~99	*1 stitch	25	20
J.3	Safety switch type	N.O. N.C.	--	N.O	N.O
J.4	Motor remains stopped until vmaterial edge sensor input ON	OFF: no such function ON: with the function	--	OF	OF
J.5	The stitches's number before motor stops when material edge sensor is off	0~254 255: : no such function	*1 stitch	10	35
J.6	Foot lifter control mode	0: Pedal: Pedal controls foot lifter 1: Auto-A: sensor control foot lifter 2: Auto@Stop: Auto footlifting after motor stops. 3 .Pedal controls foot lifter after trimming ° 4. Auto-B: Same as Auto-A and auto footlifting when sewing procedure is over.	--	0	0
A.2	Auto needle positioning mode	0.MANUAL 1.SEMI-A 2.SEMI-B 3.AUTO 4.SEMI-P	--	2	2

A.4	Need up function when pedal is heeled	0: With the needle up function when pedal is heeled. 1: Cancel the needle up function when pedal is heeled.	--	1	1
A.6	Edge sensor1 type	LA: Dark On HA: Light On	--	LA	LA
E.4	Thread suction delays stitches' number	0~99	*1 stitch	0	0
E.5	Thread suction delays stitches' number	0~99	*1 stitch	0	0
B.6	Repeated cutting times	1-50	--	1	3
B.7	The interval time between B.6	0~250	*10 ms	8	5
E.4	Waste suction delays stitches number	0~99	*1 stitch	0	0
E.5	Waste suction delays stitches number	0~99	*1 stitch	0	0
o.5	Auto foot lifter release time	1~250	*100 ms	2	2
項目	內容	範圍	單位	OL	SC
P1	針車最高速度	2 ~ 70	*100 spm	60	60
P6	虛擬下停功能	ON:有此功能 OFF:無功能	--	ON	ON
P7	虛擬下停點,	75 ~ 250	*1°	180	180
F2	馬達轉向	C:順時針 CC:逆時針	--	C	C
F5	減速曲線選擇	1 ~ 15 設定值越大,減速時間越長	--	41	41
L1	開機自動上停	OFF:無功能 ON:有此功能	--	ON	ON
L7	吸線頭_前吸風針數	0 ~ 250 250:一直輸出	*1 stitch	17	18
L8	吸線頭_後吸風針數	0 ~ 249	*1 stitch	0	35
L9	吸線頭_間隔吸風模式	0:前吸/後吸 1:前吸/間隔吸/後吸 2:間隔吸風_馬達控制 3:長吸風_馬達控制 4:前吸/後吸_馬達控制 5 沒布料且馬達運轉時吸	--	0	1
C0	吸線頭_吸風針數(間隔)	0~99	*1 stitch	10	5
C1	吸線頭_不吸風針數(間隔)	0~99	*10 stitch	1	10
C2	吸布屑_前吸風針數	0 ~ 250 250:一直輸出	*1 stitch	3	1
C3	吸布屑_後吸風針數	0 ~ 249	*1 stitch	10	21
C4	吸布屑_間隔吸風模式	0:前吸/後吸 1:前吸/間隔吸/後吸 2:間隔吸風_馬達控制 3:長吸風_馬達控制 4:前吸/後吸_馬達控制	--	1	0
C5	吸布屑_吸風針數(間隔)	0~99	*1 stitch	5	5
C6	吸布屑_不吸風針數(間隔)	0~99	*10 stitch	10	10
C7	斬刀按鍵按下後,斬刀延遲時間	0~250	*10 ms	0	30
C8	斬刀按鍵按下後吸線頭吸風時間	0~250	*10 ms	0	160
C9	前斬刀延遲針數	0~99	*1 stitch	14	16
J0	後斬刀延遲針數	0~99	*1 stitch	25	20
J3	安全開關形式	N.O.常開 N.C.常閉	--	N.O	N.O
J4	布料進入後針車才能開始車縫	OFF:無此功能 ON:有此功能	--	OF	OF
J5	布離開後幾針馬達停止	0~254 255:無此功能	*1 stitch	10	35
J6	Foot lifter control mode 壓腳控制	0:踏板控制壓腳 1:踏板+電眼 ED1 控制。 2:馬達停針自動抬壓腳。 3.切完線後才可抬壓腳。 4.同 1 並在完成縫製後自動抬壓腳	--	0	0

A2	自動停針模式	0.MANUAL 1.SEMI-A : 半自動模式 A 2.SEMI-B 3.AUTO 4.SEMI-P	--	2	2
A4	踏板後踩功能設定	0:有踏板後踩提針功能 1:取消踏板後踩提針功	--	1	1
A6	電眼 1 動作形式	LA: Dark On HA: Light On	--	LA	LA
A8	吸線頭延遲針數	0~99	*1 stitch	0	0
A9	吸線頭延遲針數	0~99	*1 stitch	0	0
B6	斬刀動作次數	1-50	--	1	3
B7	斬刀動作間隔時間 B6	0~250	*10 ms	8	5
E4	吸布屑延遲針數	0~99	*1 stitch	0	0
E5	吸布屑延遲針數	0~99	*1 stitch	0	0
o5	自動壓腳釋放時間	1~250	*100 ms	2	2

Parts list of CF-55 Control Box 控制箱主體零件表

(V3.0)



No. 序號	Parts No. 品 號	English Description 英文品名	Chinese Description 中文品名	Specification 規格	AMT 數量
1	CF-55-1K00-IM1	CF-55 Control box Assy.	CF-55 控制箱組		1
2	AGA0410A	Screw +Spring washer +Washer	螺絲+彈簧華司+平華司	M4xS4xφ8xx0.8T10L	2
3	ACA02680	Front cover	控制箱塑膠外殼		1
4	CMC00191	Display panel P.C.B. Assy.	顯示面板電路板組		1
5	AGA0306P	Screw(self tapping)	扁圓頭自攻牙割尾螺絲	#3x6L	2
6	CKL00250	Coil saddle	顯示板信號線		1
7	CXC00100	Label	銘牌貼紙		1
8	CXC00025	Voltage caution label	電壓警告三角標籤		1
9	CJA30210	Power outlet	電源插座		1
10	ACM00350	Functional cord protective casing	功能線護套		1
11	AGA0408B	Screw +Spring washer +Washer	螺絲+彈簧華司+平華司	M4xS4xφ8x0.8Tx8L	6
12	AGA0310E	Screw +Spring washer +Washer	螺絲+彈簧華司+平華司	M3xS3xφ8x0.5Tx10L	2
13	CMB01721	Main P.C.B. Assy.(CTL)	主機板組(CTL)	220V	1
14	AGA0406L	Screw +Spring washer +Washer	螺絲+彈簧華司+平華司	M4xS4xφ8x0.8Tx6L	1
15	ACM00395	Rubber pad	防震橡膠墊	D10xL10	2
16	AAB02140	Main frame of control box	控制箱鋁本體		1
17	ACK0004B	Power cable clamp	電源線壓線扣	KSS-UC1(d6.4-2分)	1
18	CKN00465	Control box power cable	控制箱電源線組	2900L	1