

電控參數說明書

ELECTRONIC CONTROL PARAMETER MANUAL



700KS(RSK)  
HF008A/CE  
VC008/CE



EC 指令自我宣告書：

本公司在此宣告以下產品系列：  
AC 伺服馬達—GD4 系列

皆符合以下 EC 指令的規定：  
-EC 低電壓指令 (2014/35/EU)  
-EC 電磁兼容指令(2014/30/EU)  
-EC 機械指令 (2006/42/EC)

及配合相關安全標準如下：  
EN 60204-31：機械之電機設備之安全。  
EN 12100：機械安全— 基本概念，設計的一般原則。

有毒物質限量指令自我宣告書：

本公司在此宣告以下產品系列：  
AC 伺服馬達—GD4 系列

皆符合以下指令的規定：  
1. 歐盟 RoHS 指令  
(2011/65/EU & (EU) 2015/863)  
2. 中華人民共和國電子行業標準：電子信息產品  
中有毒有害物質的限量要求 (SJ/T 11363-2006)

本公司產品本身(馬達,控制箱)或其包裝材料及附件(紙箱,螺絲配件,說明書,貼紙,標籤,印刷品...等)或其元件與原材料供應商皆依照歐盟 RoHS 指令及中華人民共和國電子行業標準的限量規定而符合以下所列之十種有害物質的限量要求：

有毒物質	含量限值 (PPM)
鉛 (Pb)	1000
汞 (Hg)	1000
鎘 (Cd)	100
六價鉻 (Cr VI)	1000
多溴聯苯 (PBB)	1000
多溴二苯醚 (PBDE)	1000
鄰苯二甲酸二酯(DEHP)	1000
鄰苯二甲酸丁酯苯甲酯(BBP)	1000
鄰苯二甲酸二丁酯(DBP)	1000
鄰苯二甲酸二異丁酯(DIBP)	1000

\* 基板的無鉛製程：總鉛含有濃度基準量 800 ppm 以下。  
\* 包裝材料：Pb+Hg+Cd+Cr VI 含有濃度基準總共合計 80 ppm 以下。

1. 安全注意事項：

使用前請詳閱本手冊與所搭配的縫紉機說明書，並請注意下列事項

- 安裝及操作須由受過正確訓練的人員來執行，拆卸安裝動作前請先關閉電源拔掉插頭並等待 5 分鐘。
- 本驅動裝置僅適用於指定範圍的縫製機械，請勿移做其他用途。
- 電源電壓請遵照馬達與控制箱銘牌所標示之規格 ±10 % 範圍內操作。

※注意：控制箱電源規格如為 AC 220V 時，請勿插接到 AC 380V 的電源插座上，否則將出現異常且馬達將無法動作。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，將可能燒損電源人力的保險絲及電解電容而危及人身安全。

- 請遠離高週磁波機器或電波發射器等，以免所產生的電磁波干擾本驅動裝置因而發生誤動作。
- 請不要在日光直接照射的場所、室外及室溫 45°C 以上或 5°C 以下的場所操作。
- 請不要在暖氣(電熱器)旁、有露水的場所及在相對濕度 30 % 以下或 95 % 以上的場所操作。
- 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。
- 請注意不要被外物壓住或過度扭曲電源線。
- 為防止雜訊干擾或漏電事故，請做好接地工程。
- 在第一次開電後，請先以低速操作縫紉機並檢查轉動方向是否正确。
- 縫紉機運轉時，請不要去觸摸皮帶輪、天秤、針等會動作的部位。
- 所有可動作的部份，必須以所提供的防護裝置加以隔離，防止身體接觸並請勿在裝置內塞入其他物品。
- 修理及保養須由經過訓練的技術人員執行，而所有維修用的零件須由本公司提供或認可，方可使用。
- 請不要以不適當物體來敲擊或撞擊本產品裝置。

危險標示、注意標示

- ⚠ 這個標示符號表示機器安裝時，如有錯誤恐會傷害到人體或機器會受到損壞，所以機器方面有危險性的地方會有此標示。
- ⚡ 這個標示符號表示有高壓電，電氣方面有危險性的地方會有此標示。

保固期限

本產品保固期限為購買日期起一年內或出廠月份起 18 個月內。

保固內容

本產品在正常情況且無人為失誤的操作下，於保固期間無償的為客戶維修使能正常操作。但以下情況於保固期間將得以收取維修費用：

- 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之損害。
- 3.客戶購買後摔落本產品，或客戶自行運輸(或託付之運輸公司)所造成之損害。

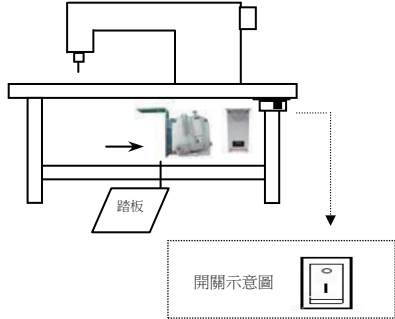
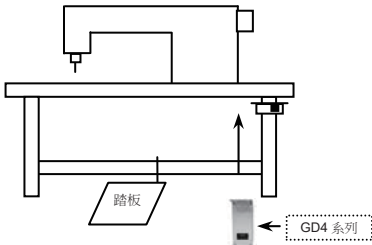
\*本產品於生產及測試上皆盡最大努力和嚴格控管使其達到高品質及高穩定的標準，但外部之電磁或靜電干擾或不穩定的供應電源，仍可能對本產品造成影響或損害，因此操作場所的接地系統一定要確實做好，並建議客戶安裝故障安全防護裝置(如漏電電驛)。

2. 安裝說明：

GD4 系列的安裝方式

a). 將馬達及控制箱鎖裝於車板下方。

b). 接著將踏板跟控制器安裝好。



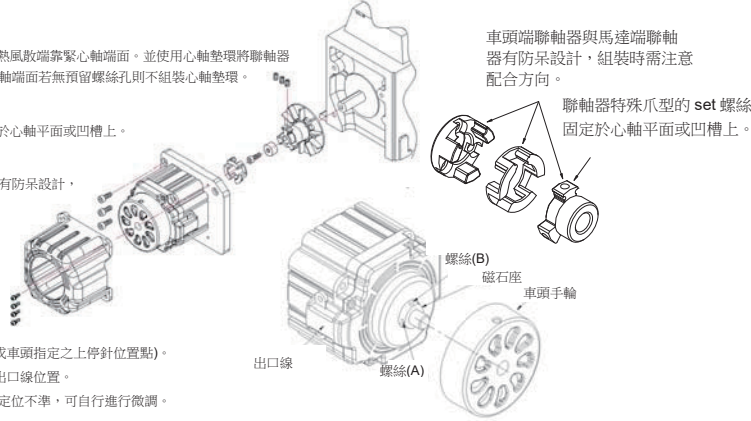
馬達的安裝

拷克車的模式

a).馬達的安裝

- 1.將車頭的散熱風扇及皮帶輪卸下。
- 2.將附件的聯軸器放入車頭心軸內，散熱風散熱靠緊心軸端面。並使用心軸墊環將聯軸器確實固定於車頭心軸。注意：車頭心軸端面若無預留螺絲孔則不組裝心軸墊環。
- 3.固定聯軸器的 set 螺絲。
- 注意：聯軸器特殊爪型的 set 螺絲固定於心軸平面或凹槽上。
- 4.將 M5 馬達固定於車頭端面上。
- 注意：車頭端聯軸器與馬達端聯軸器有防呆設計，組裝時需注意配合方向。
5. 固定馬達隔熱罩。

注意：  
安裝及調整前請確定已關掉電源  
開關及拔掉插頭以利人身安全。



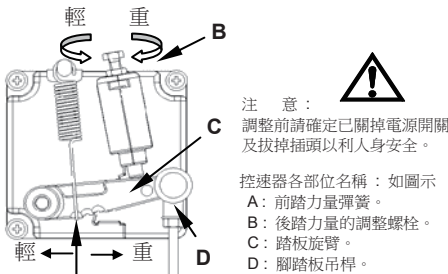
b).定位調整

1. 請先取下車頭手輪。
2. 轉動心軸使天秤停在最高點位置(或車頭指定之上停針位置點)。
3. 轉動反光片座使螺絲(A)對準馬達出口線位置。

註：上述調整為標準調法，如覺得定位不準，可自行進行微調。

控速器的調整

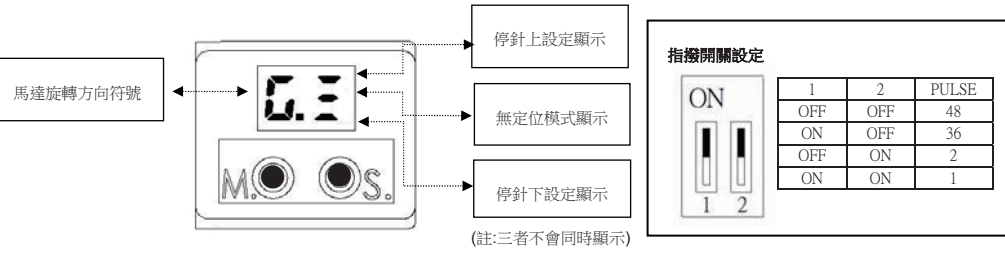
	調整需求	調整結果
1	踏板前踏	當彈簧 A 愈向右側勾時，表示力量的愈重。
	力量的調整	當彈簧 A 愈向左側勾時，表示力量的愈輕。
2	踏板後踏	當螺絲 B 愈向上時，則後踏力量愈輕。
	力量的調整	當螺絲 B 愈向下時，則後踏力量愈重。
3	踏板行程	當吊桿 D 向右側孔鎖裝時，表示行程較長。
	長短的調整	當吊桿 D 向左側孔鎖裝時，表示行程較短。



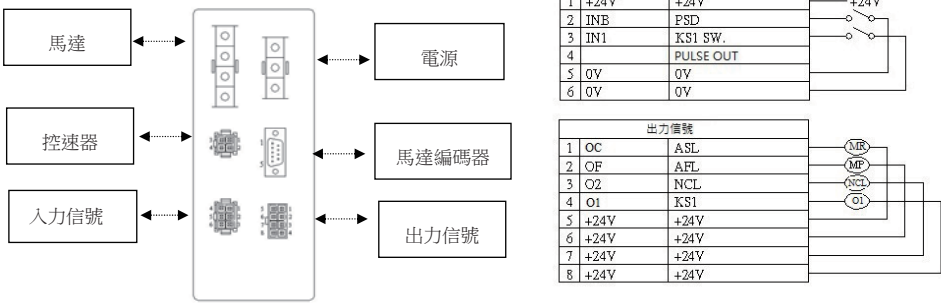
注意：  
調整前請確定已關掉電源開關  
及拔掉插頭以利人身安全。

控速器各部位名稱：如圖示  
A：前踏力量彈簧。  
B：後踏力量的調整螺絲。  
C：踏板旋臂。  
D：腳踏板吊桿。

3. 控制面板按鍵說明：



3.1 端子座示意圖



4.參數區內容調整步驟:

如何進入參數內容區調整內容

步驟一：按住 M 鍵後，則進入設定模式。

步驟二：按 M 鍵選擇欲調整的參數

步驟三：按 S 鍵進入數值調整模式。

步驟四：按 M 鍵可遞增數值。

步驟五：調整至欲設定之數值後，按 S 鍵進行儲存。

4.2 角度顯示說明

角度值	顯示值
60	60
160	60
260	60
360	60

4.1 如何設定馬達旋轉方向

按住 “ M ”，並同時開啟電源。進入設定模式後以 “ M ” 選擇 C (CW) / CC (CCW)。選擇後按 “ S ” 進行儲存。

5. 常用參數列表：

參數代碼	參數定義	調整範圍	單位	D0	D1	D2	D3	D4	D5	D6
P0	最高車縫速度	10 ~ 70	*100spm	60	50	26	40	45	45	40
P1	最低車縫速度	10 ~ 50	*10spm	25	25	20	25	25	25	25
P2	馬達皮帶輪徑	1 ~ 160	*1m/m	75	75	75	75	75	75	75
P3	車頭皮帶輪徑	1 ~ 160	*1m/m	75	75	75	75	75	75	75
P4	皮帶輪比的計算模式	ON/OFF	ON:依 P2,P3 計 OF:自動計算	ON	ON	ON	ON	ON	ON	ON
P5	車縫速度顯示	---	*100spm	---	---	---	---	---	---	---
P6	上定位點設定	0 ~ 359	*1°	0	0	70	0	0	0	0
P7	下定位點設定	0 ~ 359	*1°	80	80	8.0	80	80	80	80
P8	單一信號定位器功能開啟	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
P9	單一信號定位器『針上』位準選擇	L/H	L:LOW 位準 H:HIGH 位準	L	L	L	L	L	L	L
PA	慢速起縫模式	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PB	起縫慢針速度	10 ~ 50	*10spm	40	40	40	40	40	40	40
PC	起縫慢針針數	1 ~ 9	*1 針	2	2	2	2	2	2	2
PD	開電時第一針自動慢速功能開啟	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	ON
PE	馬達停止時，剎車鎖住的功能開啟	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PF	馬達停止時，剎車鎖住的力道調整	0.1 ~ 5.0	電流安培值	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PG	馬達加速曲線的時間設定	10 ~ 50	*10ms	20	20	14	20	20	20	20
PH	馬達減速曲線的時間設定	10 ~ 50	*10ms	20	20	16	20	20	20	20
PI	後路反轉功能(特殊搭配功能)	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PJ	反轉角度設定(特殊搭配功能)	0-30	*10°	80	80	80	80	80	80	80
PK	後路提針功能(針偏離上定位時)	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PL	前踏—針—針控制功能	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PM	提針後前踏第一針針針控制功能	ON/OFF	ON:有效 OF:無效	OF	OF	OF	OF	OF	OF	OF
PN	後路提針速度	10 ~ 50	*10spm	20	20	25	20	20	20	20
PO	切刀動作時間	1 ~ 25	*100ms	1	1	1	1	1	1	1
PP	車頭與轉符號切換	ON/OFF	ON:有 OF:無	ON	ON	OF	ON	ON	ON	ON
PQ	半後路取消	ON/OFF	ON:有 OF:無	OF	OF	OF	OF	OF	OF	OF

註：車頭碼調整方式

進入一階 P2 參數，按 S 鍵調整個位碼 0-9 按住不放，以數碼累加，直到放開 S 鍵停止累加，如果 0.3 秒內沒再按鍵，即回復到正常畫面，自動儲存。

電控參數說明書

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EC Declaration of Conformity

We hereby declare that the following products:  
AC servo motor—GD4 series  
are in conformity with the provision of the EC directives as following :  
-EC Low Voltage Directive (2014/35/EU)  
-EC Electromagnetic Compatibility Directive (2014/53/EU)  
-EC Machinery Directive (2006/42/EC)  
Applied harmonized standards :  
EN 60204-31 : Electrical equipment of industrial machines. Particular requirements for sewing machines, sewing units and sewing system.  
EN 12100 : Safety of machines.

Declaration of Conformity for Concentration Limits for Certain Hazardous Substances

We hereby declare that the following products:  
AC servo motor—GD4 series  
are complies with the following directives and requirements :

- European Union RoHS Directive (2011/65/EU) and the concentration limits for certain hazardous substances (EU) 2015/863)
  - People's Republic of China Electronic Business Standard : Requirements for concentration limits for certain hazardous substances in electronic information products (SJ/T 11363-2006)
- Our product itself (motor, control box) or its packing materials and accessories (box, screws package, user manual, sticker, label, print...etc.) or the suppliers of parts and raw materials are all in conformity with the provision of the European Union RoHS Directive and People's Republic of China Electronic Business Standard to conform the following concentration limits for the ten hazardous substances :

Hazardous Substance	Permissible Values
Lead (Pb)	1000
Mercury (Hg)	1000
Cadmium (Cd)	100
Hexavalent chromium (Cr VI)	1000
Polybrominated Biphenyl (PBB)	1000
Polybrominated Diphenyl ether (PBDE)	1000
Di(2-ethylhexyl)phthalate (DEHP)	1000
Butyl Benzyl Phthalate (BBP)	1000
Dibutyl phthalate (DBP)	1000
Diisobutyl phthalate (DIBP)	1000

\*The concentration of lead in the lead-free process for PCB shall be less than 800 ppm.  
\*For packing materials shipped with our products or parts, the hazardous substances shall be 80 ppm or less in sum of Pb+Hg+Cd+Cr VI.

1. Safety Precaution :

Please read this manual with sewing machine manual thoroughly and pay attention for the following safety precaution.

- Installation and operation must be done by the trained personnel, also turn off the power switch and remove the plug from outlet and wait for 5 minutes before any installation.
- This product is designed for the specific sewing machines and must not be used for other purposes.
- Only use the power voltage as described on the name plate of the motor and control box in  $\pm 10\%$  ranges.

**⚠Attention : If the control box is AC 220V system, please don't connect to the AC 380V power outlet, otherwise the error will occur and motor is not functional. If that happened, please turn off the power switch immediately and check the power voltage. Continue supply the 380V power over 5 minutes might damage the fuses and burst the electrolytic capacitors and even might endanger the person safety.**

- In order to prevent abnormal operation, keep the product away from the high frequency machines.
- Don't operate in direct sun light - outdoors area and the room temperature is 45°C above or 5°C under.
- Don't operate near the heater - dew area and the humidity is 30 % less or 95% more.
- Don't operate in dusty - evaporate - combustible gas area, and stay away from corrosive material.
- Don't apply heavy objects or excessive force on the power cord, also don't bend or pull the power cord.
- In order to prevent the static interference and current leakage, all grounding works must be done properly.
- After power on the machine for the first time, use low speed to operate and check the correct rotation direction.
- During machine operation, don't touch any moving parts.
- All moving parts must have protective device to avoid the body contact and objects insertion.
- Maintenance and repair must be done by the properly trained technician, also all the spare parts for repair must be approved or supplied by the manufacturer.
- Don't use any objects or force to hit or ram the product.

Danger and caution signs



Risks that may cause personal injury or risk to the machine are marked with this symbol in the instruction manual.



This symbol indicates electrical risks and warnings.

Limited Warranty

Warranty period of this product is 1 year from purchasing, or 18 months from our manufacturing date.

Warranty Detail

Any trouble found within warranty period under normal use condition in conformance with this manual, it will be repaired free of charge. Repair will be chargeable in the following cases even if within warranty period :

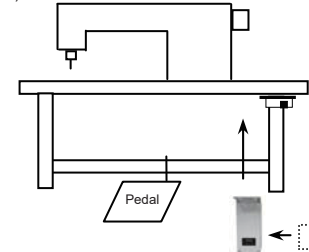
- Inappropriate use include: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operate the product without the precaution, or operate the products out of its specification range. Insert odd objects or liquids into the product.
- Damage by fire, Earth quake, lightning, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments.
- Dropping after purchase, or damage in transportation by customer himself. (or by customer's shipping agency)

Note : We put our best effort and mind in testing and manufacturing for assuring the quality and reliable of this product. But it is possible this product can still be damaged due to external magnetic interference and electronic static or noise or unstable power source more than expected; therefore the grounding system of operate area must be well-connected to this product and it's also recommended to install a failsafe device. (such as residual current breaker).

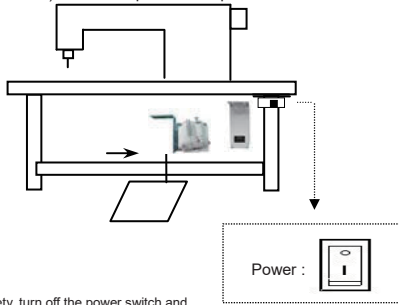
2. Installation :

GD4 installation

a). Install the motor and control box under the table



b). Install the pedal with speed control unit.



Caution :  
For person safety, turn off the power switch and remove the power plug from outlet before any adjustment.

Overlock Mode

a). Motor Installation

- Takes off the heat exhaust fan and pulley of sewing machine.
- Puts coupling into shaft of sewing machine, heat exhaust fan closes to shaft. Fix coupling in shaft by bushing.

Caution : in case the sewing machine dose not reserve screw hole

- Fix the set screw of coupling -

Warning : clamp sets crew of coupling mustfix in flat surface of shaft or carve.

- Fix M 5 motor on fan cover.

Warning: there is against dull design for coupling of sewing and motor, joint direction must pay more attention on it.there is against dull design for coupling of sewing and motor, joint direction must pay more attention on it -

- Fix fan cover of motor.

b). Adjust on position

- Takes off hand wheel of sewing machine.

- Turns the shaft gets the scale stop at highest point

(or the point of up position in sewing machine).

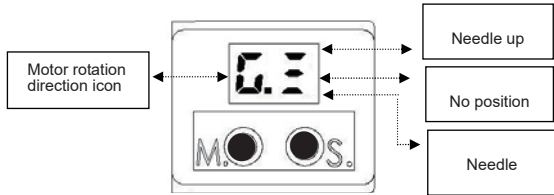
- Turn the encoder disc and the screw (A) to aim at wire outlet of motor.

Remark: above description is a standard of position adjustment, if the position is not satisfy pleases adjust till it match your requirement.

Speed Control Unit adjustment

	Term of adjustment	Adjustment result
1	Toeing forward	Spring A move to right = force increased
	force adjustment	Spring A move to left = force decreased
2	Heeling backward	Bolt B turn  = force decreased
	force adjustment	Bolt B turn  = force increased
3	Pedal stroke	Rod D secure at right = stroke is longer
	adjustment	Rod D secure at left = stroke is shorter

3. Panel Key Functions :

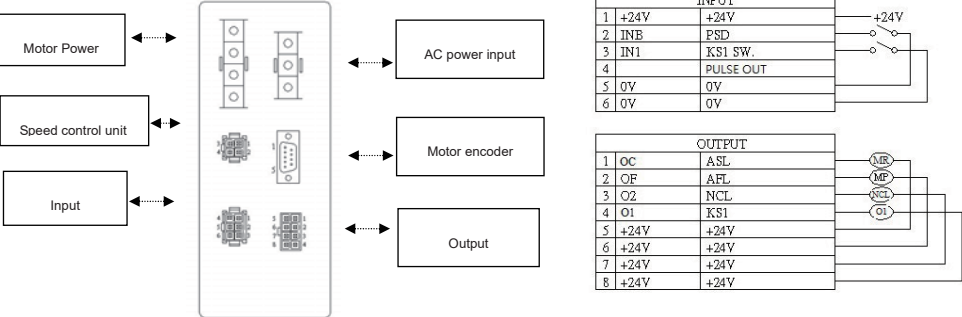


(Note: Above 3 modes do not display at same time )

DIP-SWITCH Adjustment :

ON	1	2	PULSE
OFF	OFF	OFF	48
ON	OFF	OFF	36
OFF	ON	ON	2
ON	ON	ON	1

3.1 CONNECTOR DIAGRAM:



4. Adjust step at parameter zone:

- Step1: Press "M." key to enter setting mode.
- Step2: Press "M." key select the parameter you want to adjust.
- Step3: Press "S." key enter the parameter value adjustment.
- Step4: Press "M." key increase the value.
- Step5: Press "SET" key to save.

4.2 Angle display :

Angel Value	Display Value
60	60
160	60
260	60
360	60

4.1 Motor direction setting:

Press the " M. " and turn on the power at same time . Enter the setting mode , press " M. " key to select C(CW) / CC(CCW). Press " S. " key to save.

5. General Parameter List :

Parameter NO.	Function Name	Range	Value	D0	D1	D2	D3	D4	D5	D6
P0	Maximum sewing speed	10 ~ 70	*100spm	60	50	26	40	45	45	40
P1	Low speed	10 ~ 50	*10spm	25	25	20	25	25	25	25
P2	Motor's pulley dimension	1 ~ 160	*1m/m	75	75	75	75	75	75	75
P3	Machine's pulley dimension	1 ~ 160	*1m/m	75	75	75	75	75	75	75
P4	Pulley's ratio setting mode selection	ON/OFF	ON: Refer to P2,P3 OF: Calculate Automatically	ON	ON	ON	ON	ON	ON	ON
P5	Sewing speed	-	*100spm	-	-	-	-	-	-	-
P6	Virtual up A position edge angle	0 ~ 359	*1°	0	0	70	0	0	0	0
P7	Virtual down A position edge angle	0 ~ 359	*1°	80.	80.	8.0	80.	80.	80.	80.
P8	Single positioning signal synchronizer	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
P9	Define the UP positioning signal mode H/L	L/H	L:LOW H:HIGH	L	L	L	L	L	L	L
PA	Slow start operation mode	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PB	Soft start speed	10 ~ 50	*10spm	40	40	40	40	40	40	40
PC	Stitch numbers for soft start	1 ~ 9	*1	2	2	2	2	2	2	2
PD	Slow start setting for first stitch sewing when the power ON	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	ON
PE	Motor braked at normal stop	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PF	Weak braking torque scale	0.1 ~ 5.0	Ampere value	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PG	Acceleration time adjustment	10 ~ 50	*10ms	20	20	14	20	20	20	20
PH	Deceleration time adjustment	10 ~ 50	*10ms	20	20	16	20	20	20	20
PI	Reverse angles function selection	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PJ	Reverse angles through Needle down and up	0 ~ 30	*10°	80.	80.	80.	80.	80.	80.	80.
PK	Needle up function for full heeling pedal	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PL	Inching sewing function	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PM	Press down the pedal just half stitch after needle up function	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PN	Needle up speed	10 ~ 50	*10spm	20	20	25	20	20	20	20
PO	Tape cutter on time	1 ~ 25	*100ms	1	1	1	1	1	1	1
PP	Direct drive type or belt drive type	ON/OFF	ON: Valid OF: Invalid	ON	ON	OF	ON	ON	ON	ON
PQ	Cancel foot lifting at half-heeling pedal	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
PZ	Machine Code	D0 ~ D6	-	D0	D1	D2	D3	D4	D5	D6

Parameter NO.	Function Name	Range	Value	D0	D1	D2	D3	D4	D5	D6
BS	Front suction function selection	ON/OFF	ON: Valid OF: Invalid	ON	ON	OF	OF	OF	OF	OF
C1	Front suction function stitches setting	0 ~ 99	*1 Stitch	5	20	5	20	5	5	0
ES	Rear suction function selection	ON/OFF	ON: Valid OF: Invalid	ON	ON	OF	OF	OF	OF	OF
C2	Rear suction function stitches setting	0 ~ 99	*1 Stitch	35	40	35	40	35	35	99
DS	Setting stitches of delay rear suction	0 ~ 20	*1 Stitch	0	0	0	0	0	0	0
BT	Front cutter function selection	ON/OFF	ON: Valid OF: Invalid	OF	ON	OF	ON	ON	ON	OF
C3	Setting stitches of front cutter	0 ~ 99	*1 Stitch	5	10	5	16	5	5	5
ET	Rear cutter function selection	ON/OFF	ON: Valid OF: Invalid	OF	ON	OF	ON	ON	ON	ON
C4	Setting stitches of rear cutter	0 ~ 99	*1 Stitch	35	40	35	25	35	35	15
WS	Air saving function selection	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
W1	Setting valid stitches of suction for air saving	0 ~ 99	*1 Stitch	10	10	10	10	10	10	10
W2	Setting invalid stitches of suction for air saving	0 ~ 99	*10 Stitch	3	3	3	3	3	3	3
C8	Edge sensor function selection	ON/OFF	ON: Valid OF: Invalid	ON	ON	OF	OF	ON	ON	ON
C9	Automatic sewing speed	1 ~ 50	*100spm	20	20	20	25	40	40	20
CA	Re-start function at emergency stop	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
CB	PSN logic signal invert	L/H	L:LOW H:HIGH	L	L	L	H	L	L	L
CC	Edge sensor signal check	0 ~ 99	*1 Stitch	3	3	3	3	3	3	3
CD	Mode selection for foot lifting after trimming	ON/OFF	ON: Valid OF: Invalid	OF	OF	OF	OF	OF	OF	OF
CE	Trimmer function selection	ON/OFF	ON: Valid OF: Invalid	OF	OF	ON	OF	OF	OF	OF
CF	Foot lifting active delay timer	2~25	*100ms	2	2	2	2	2	2	2
CG	Trimming mode at sensory stop	ON/OFF/ SU/SD	ON : After the stitches of [C2. ASLC2] finished, restart section by automatically. OF : After the stitches of [C2. ASLC2] finished, restart section by full hell back. SU : After the stitches of [C2. ASLC2] finished, stops up position , restart section full-heeling pedal. SD : After the stitches of [C2. ASLC2] finished, stops down position , restart section by full-heeling pedal.	ON	ON	ON	ON	ON	ON	ON
CH	Mode selection for [C2. ASL2] Stitches sewing	A/M	A: One shot sewing. M: Pedal control and motor can stop at middle way.	A	A	A	A	A	A	M
CI	Tape cutter connection suction on time setting	0~99	*100 ms	0	0	0	15	15	15	5
CJ	Simple suction stitch setting	0~99	*1 Stitch	6	6	6	6	6	6	6
CK	Suction output mode setting	AS/NC/ SK/BL/ TK	AS: Suction function output. NC: Needle clooing output. SK: Simple suction function output. BL: Air blower output for tape cutter function. TK : tape cutter output. (for duble cutter function TK2)	AS	AS	AS	BL	TK	TK	TK
CL	Foot lifting off delay timer	0~25	*100ms	1	1	1	1	1	1	1
CM	Tape cutter connection blower on time setting	0~99	*10 ms	10	10	10	8	8	8	10
CN	Manual tape cutter function	ON/OFF	ON : Manual tape cutter anytime enable. OF : Manual tape cutter must detect sensor single off .	OF	OF	OF	OF	OF	OF	OF
CP	Restart section function select	ON/OFF	ON : Normal stop function. OF : Auto restart to first section .	ON	ON	ON	ON	ON	ON	OF
F1	Safety switch Mode Setting	S6/ST/O F /T1/T2	S6 : Machine protection sw. ST : Cutter protection sw. OF : No function. T1 : Cutter output one times. When [ PZ ] = D4 valid. T2 : Cutter output two times. When [ PZ ] = D5 valid.	OF	OF	OF	ST	T1	T2	OF
F2	Safety switch protection mode	NC/NO	NC : Normal close NO : Normal open	NO	NO	NO	NO	NO	NO	NO
F3	Knee switch function mode	TK/FL	TK: Define switch by tape cutter function. FL : Define switch by footlift function.	FL	FL	FL	FL	FL	FL	TK
F4	INB Input function select	SF/PT US/DS	SF : Safety switch function mode PT : Photoelectric function mode US : Needle up at emergency stop DS : Needle down at emergency stop	PT	PT	PT	PT	PT	PT	PT
FL	Factory default load	Y/N	Factory setting load	N	N	N	N	N	N	N
FS	Factory default save	Y/N	Factory setting save	N	N	N	N	N	N	N

NOTE: Selected machine code Enter "PZ" PARAMETER , press S . KEY and hold it to adjust digit 0~9.