

SIRUBA

ELECTRONIC CONTROL PARAMETER MANUAL

700KQT/ECM 700LQT/ECM



INDEX

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Environmental Requirements:

1. Please do not work at damp place
2. 220V electronic control: [220V access to power supply voltage stability between (200V~240V)]
110V electronic control: [110V access to power supply voltage stability between (100V~130V)]
3. Must be adequately grounded for safety
4. Do not work at high temperature
5. Do not run motor and control system near to ferromagnetic or high-radiance area

Warranty Service:

1. Our products come with year of quality guarantee, from the ship day. Within guarantee period, service is free of charge, unless man-made damage or misuse
2. During the guarantee period, our free service does not cover below:
(1) Dismantle the motor unit without permission, and cause damage.
3. please contact us whenever have problem.

MAINTENANCE



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

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 (AC200V~240V)]

Voltage	220V 1 phase
Frequency	50~60 Hz
Speed	200-6500 rpm
Motor torque	≤2.2N.m

110V electronic control: [110V access to power supply voltage stability between (AC100V~130V)]

Voltage	110V 1 phase
Frequency	50~60 Hz
Speed	200-6500 rpm
Motor torque	≤2.2N.m

Safety requirement:

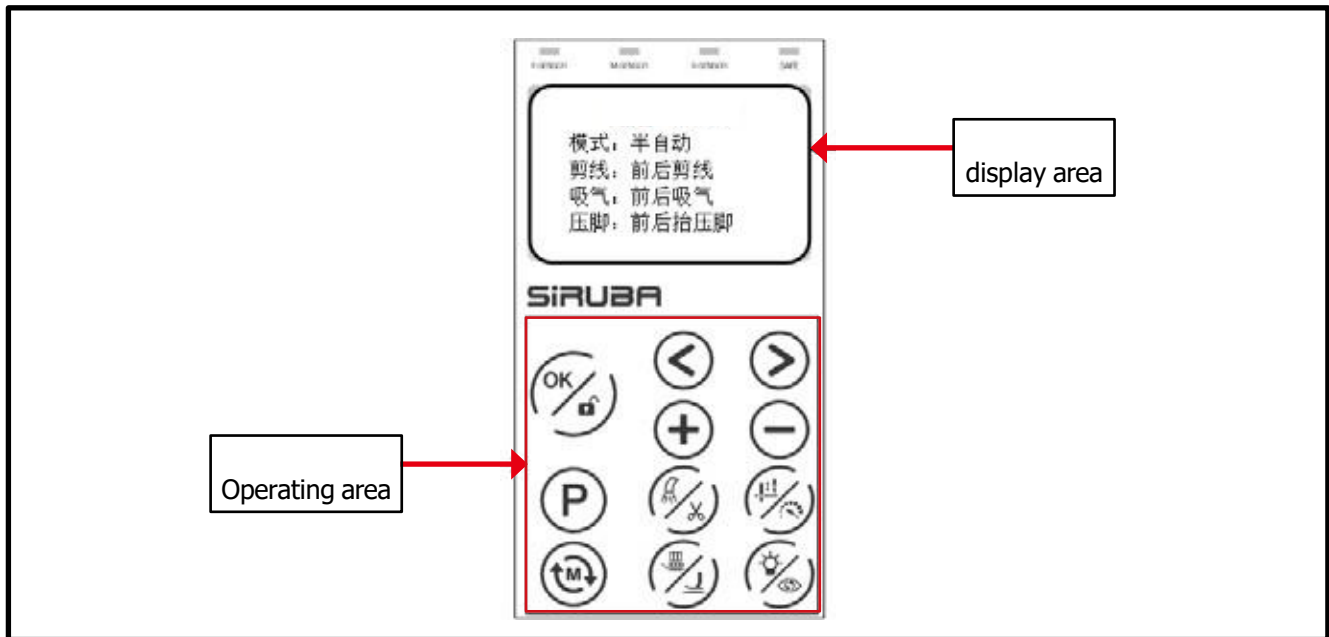
1. Do not put your feet on the pedals when the control box and motor is switched on (boot status).
2. Let professionals to install and debug this product.
3. Do not open the control box and the motor cover when energized.
4. Please turn off the power when changing the needle, threading or replacing the 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.
8. Do not operate in direct sunlight or outdoors 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 cannot be solved, you can contact with our company.

INTRODUCTION OF DISPLAY SCREEN COMMON OPERATION

1. Display screen introduction: it has two parts (operate interface display area)



2. Operate interface function introduce:



Serial number	Parameters of the code	function instruction	
1	 Menu button	Press to enter the user parameter	Long press to enter the system parameter (password required)
2	 Confirm button	parameter confirm key	
		Long press to lock the screen, press to unlock	
3	 Numerical adjustment key	Parameter number upwards key (used as plus when adjusting the value)	
4		Parameter number downwards key (used as minus when adjusting the value)	

5	 Left key	Left key (moving the cursor to left when adjusting the parameter)																						
6	 Right key	Right key (moving the cursor to right when adjusting the parameter)																						
7	 Mode switch key	Press  to enter: auto, semi-auto, free stitch, full manual, switch in turn. Auto: The machine starts work without pushing the pedal when the cloth cover the first sensor. Semi-auto: Push the pedal to start the machine when the cloth cover the first sensor. Free stitch: Push the pedal to start the machine no matter the cloth cover the first sensor or not. Full manual: All the functions include trimming and lifting the presser foot should be operated manually. The machine will not work when pushing the pedal if the safety switch is off in the mode of auto, semi-auto or free stitch. But the machine will work when pushing the pedal if the safety switch is off in the mode of full manual.																						
Introduction of multifunctional shortcut keys																								
8	 Trimming, air-suction mode switching key	Press  to enter the air-suction parameter or trimming parameter selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press  to enter the parameter adjustment when fixed the mode. Air-suction mode: front suction, rear suction, fro+rear suction, off suction. Trimmer mode: front trimmer, rear trimmer, fro+rear trimmer, off trimmer. Moving the cursor to select the parameter is the same as above. Long press  to enter the air-suction parameter and trimming parameter selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press to enter the parameter adjustment when fixed the mode. Air-suction parameter: <table><tr><td>S05 Delay stitch number to cut thread after front sensors</td><td>002</td></tr><tr><td>S06 Front suction close stitches</td><td>014</td></tr><tr><td>S07 Back suction start stitches no.</td><td>002</td></tr><tr><td>S08 the delay of back suction close</td><td>0200</td></tr><tr><td>S13 middle suction start stitches</td><td>050</td></tr><tr><td>S14 middle suction close stitches no.</td><td>020</td></tr></table> Trimmer parameter: <table><tr><td>S03 Delay stitch number to cut thread after front sensors</td><td>022</td></tr><tr><td>S04 Delay stitch number to cut thread after three sensors</td><td>000</td></tr><tr><td>S24 Operate manual switch action</td><td>1</td></tr><tr><td>S25 Safe switch choice</td><td>3</td></tr><tr><td>S26 The knife retaining time</td><td>0025</td></tr></table>	S05 Delay stitch number to cut thread after front sensors	002	S06 Front suction close stitches	014	S07 Back suction start stitches no.	002	S08 the delay of back suction close	0200	S13 middle suction start stitches	050	S14 middle suction close stitches no.	020	S03 Delay stitch number to cut thread after front sensors	022	S04 Delay stitch number to cut thread after three sensors	000	S24 Operate manual switch action	1	S25 Safe switch choice	3	S26 The knife retaining time	0025
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S25 Safe switch choice	3																							
S26 The knife retaining time	0025																							

9	 Speed and stop needle position mode switching key	Press  to enter the stop needle position or speed adjustment selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press  to enter the parameter adjustment when fixed the mode. Long press  to enter the stop needle position parameter or speed parameter selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press  to enter the parameter adjustment when fixed the mode. Needle position parameter: S02 Stitch number between two sensors 020 S12 Machine stop delay stitches no. 002 (VTE :135) Speed parameter: S38 the max speed locked 6500 S50 Acceleration sensitivity 6 Press  to enter the thread loosening mode or presser foot mode selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press  to enter the parameter adjustment when fixed the mode. Thread loosening mode: front thread loosening, rear thread loosening, fro+rear thread loosening, off thread loosening. Presser foot mode: front lift, rear lift, fro+rear lift, off lift. Long press  to enter the presser foot parameter or thread loosening parameter selection, press  to select the model with moving the cursor, or move the cursor to select the mode with  and  , press  to enter the parameter adjustment when fixed the mode. Presser foot parameter: S19 Front foot presser lift retaining time 0400 S20 Back foot presser lift start time 0000 S21 Foot presser protection time 006 S22 Release foot presser protection time 020 S31 Foot presser full power time 180
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		S32 Foot presser full power 100 S33 Foot presser retaining power 20 P22 Close manual foot presser lift 0 Thread loosening parameter: VTE: S09 Front thread loose delay 000 S09 Front thread close delay 002 S10 Front thread loose stitches 012 S10 Back thread close delay 028 S11 Back thread loose start 000 S03 Front thread loose delay 001 S04 Back thread loose delay 022
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10	 Sensor switch and machine lamp luminance mode switching key	Press  to enter the cloth selection: thick material, normal material, thin material, transparent material, big net material, small net material, press  、  、  、  to move the cursor to select the cloth, press  to adjust the sensor sensitivity automatic when fixed the cloth.	
		Long press  to enter the machine lamp luminance adjustment (1-5 step), the lamp will be turned off when press  at the 5 steps.	
11	F-SENSOR	Front sensor indicator	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	Medium sensor indicator	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	Back sensor indicator	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.
14	SAFE	Safety switch indicator	When the safety switch is off and the SAFE light is on, check that the safety switch is responsive.

HOW TO ENTER PARAMETERS AND HOW MODIFY THE PARAMETERS

System parameter entering analysis:

1. Long press  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  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

User parameter entering analysis:

2. Press  to enter the parameter,   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  button to save parameters and quit system parameters.

1. Technician system parameter list

System parameter list	Function description	Parameter default values	Parameter Adjustment range	Parameter description
S01	Thread track	3	1 ~ 4	
S02	Stitch number between two sensors	20	1~50	Set stitch number between two sensors
S03	Delay stitch number to cut thread after front sensors	28	0~50	Set delay stitch number after passing front sensors.Auto cut thread after stitchs
S04	Delay stitch number to cut thread after two sensors	14	0~100	Set delay stitch number after passing two sensors.Auto cut thread after stitchs
	Delay stitch number to cut thread after three sensors	2	0~100	Set delay stitch number after passing two sensors.Auto cut thread after stitchs
S05	Delay stitch number for starting front air suction	2	1~50	Set delay stitch number for starting front air suction after triggering first sensor
S06	Front suction close stitches no.	14	1~50	Account how many stitches begin to close former suction
S07	back suction start stitches no.	2	1~50	After leaving latter photo-eye,how many stitches begin suck
S08	the delay of back suction close	200	100~5000MS	After leaving latter photo-eyes,count how many milliseconds off suction
S09	front thread loose delay	00		
S10	Front thread loose stitches	12		
S11	Back thread loose start	00		
S12	machine stop delay stitches no.	2	1~99	How much stitches auto parking after trimmer
S13	middle suction start stitches no.	50	1~250	middle suction interval stitches

S14	middle suction close stitches no.	20	1~100	Middle suction stitches
S15	the needle no. of the delay of back cutting line	25	1~100	Leave in the light eye after much after the needle cannot detect the third eye signal begins to cut the line
S16	front sensor respond time	40	1~100MS	The response time when former photo-eye sense
S17	front sensor sensitivity degree	55%	20~175	Setting photo-eye through the fabric strength,to adapt to different fabrics
S18	Back sensor sensitivity degree	55%	20~175	Setting photo-eye through the fabric strength,to adapt to different fabrics
S19	front foot presser lift retaining time	220	100~2000MS	when front sensor feel the cloth, the foot presser lifter maintain time
S20	back foot presser lift start time	0	0~2000MS	The lift foot response time after latter foot pedal(millisecond)
S21	foot presser protection time	6	1~120S	Lifter the foot presser by hand some time then Auto close foot presser output(second)
S22	release foot presser protection time	20	20~800MS	the foot presser release protection time (millisecond)
S23	continue feed cloth suction cutting line	0	0~1	0:Close 1:Open
S24	operate manual switch action	1	0~1	0:When the motor is running, tuch manual switch no cutting, 1:Have cutting
S25	safe switch choice	3	0~3	0:off safety switch 1:Seam safety switch 2:Foot safety switch 3: Seam & Foot safety switch
S26	the knife retaining time	25	1~1000MS	Cutting action time (basically no adjustment)
S27	recover time	5	5~100S	After entering the control panel ,how much time to jump back to the main menu interface
S28	sensor mode (number choice)	2	1~2	1:single photo-eye 2:double photo-eye

S29	front sensor polarity	0	0~1	Opposite polarity opposite
S30	back sensor polarity	0	0~1	Opposite polarity opposite
S31	foot presser full power time	60	10~990MS	Time of full power operation
S32	foot presser full power	100	20~100%	When the foot starts to move, the instantaneous output power
S33	foot presser retaining power	16	10~90%	Pressure foot lift after the maintenance of the power to live (not more than 50)
S34	back cutting line sensor sensitivity degree	55	5~99%	the third sensor Emission intensity
S35	back cutting line sensor start	2	0~2	0: closed 2: open
S36	obligate	01		
S37	language choice	0	0~2	0:Chinese 1:English 2:Turkish 3:Vietnamese
S38	the max speed locked	4800	250~6500	Maximum adjustable speed limit for motor
S39	parameter reset	0	0~1	Transferred to 1 long-press the OK button to effective
S40	Parameter password	2014		If you cannot remember the password, please do not modify it; if you change the password and forget it, you will need to send it back to the manufacturer for decryption again.
S41	obligate	2500	250-4500	
S42	obligate	008	1-100	
S43	Mesh needle	06	0-15	
S44	Cloth choose	1	0-7	0: Thick material 1: Normal 2: Thin material 3: Transparent 4: Large mesh 5: Small mesh
S45	Front sensor action threshold	50	5-200	

S46	Medium sensor action threshold	50	5-200	
S47	Back sensor action threshold	50	5-200	
S48	Motor running direction	1	0-1	0: motor inversion 1: motor forward transmission
S49	Acceleration curve	70	10-100	
S50	Acceleration sensitivity	6	1-6	
S51	Sensor rough tuning enabled	0	0-1	0: closed 1: open
S52	Strong automatic thread cutting	4	0-4	0: strongest thread cutting protection 1: strong thread cutting protection 2: general thread cutting protection 3: weak thread cutting protection 4: no thread cutting protection
S53	Sensor sensing time	6	3-150	
S54	Sensor dis-induction time	20	3-150	
S55	Step into the direction	0	0-1	0: forward 1: reverse
S56	Step origin offset	010		Adjust the origin position of stepping motor
S57	Step origin moment	002		Step motor to find the origin of the force size
S58	Step trimming force moment	075		Thread cutting force of stepping motor (the higher the value is, the louder the sound is; the smaller the value is, the smaller the sound is)
S59	Step thread cutting angle	240		Fine tuning of stepping line cutting angle (the deeper the numerical large knife edge closure is, the shallower the numerical small knife edge closure is) (the value cannot be adjusted too high, and the angle value that reaches the height limit is good, so as to avoid the motor losing step if the stepping motor does not move in place)
S60	Step forward knife speed	550		The higher the value, the faster the cutting speed, while the smaller the value, the slower the speed

S61	Step backward knife speed	350		The higher the value is,the faster the backward knife cutting speed is,while the smaller the value is,the slower the speed is
S62	Step motor in the knife angle	03		
S63	Step motor out the knife angle	00		
S64	Step motor presser foot lift angle	0390		The larger the value,the higher the presser foot,and the smaller the value,the lower the presser foot (the value can not be adjusted too high,and it is good to reach the angle value of the height limit,so as to avoid the stepping motor does not move in place and the motor loses its step)
S65	Step motor presser foot lift speed	520		The higher the value,the faster the cutting speed,while the smaller the value,the slower the speed
S66	Step motor release presser foot speed	350		The higher the value,the faster the cutting speed,while the smaller the value,the slower the speed
S67	Step motor presser foot lift power	000		
S68	Step motor release presser foot power	000		
S69	Step motor tiny lift presser foot	3	0-3	
S70	Step motor tiny lift presser foot angle	330	1-800	
S71	Step motor tiny lift presser foot speed	95	0-100	
S72	Step motor tiny release presser foot speed	045	0-100	
S73	Step motor tiny release presser foot time	10	0-6000	
S74	Needle stop signal selection	1	0-1	

S75	Up needle stop angle	60	0-359	
S76	Down needle stop angle	180	0-359	
S77	Up and down needle stop angle difference	180	90-270	
S78	Prohibit voltage power down detection	0	0-3	
S79	Maximum current	350		
S80	Angle detection	0	0-1	

2.The workers system parameter list

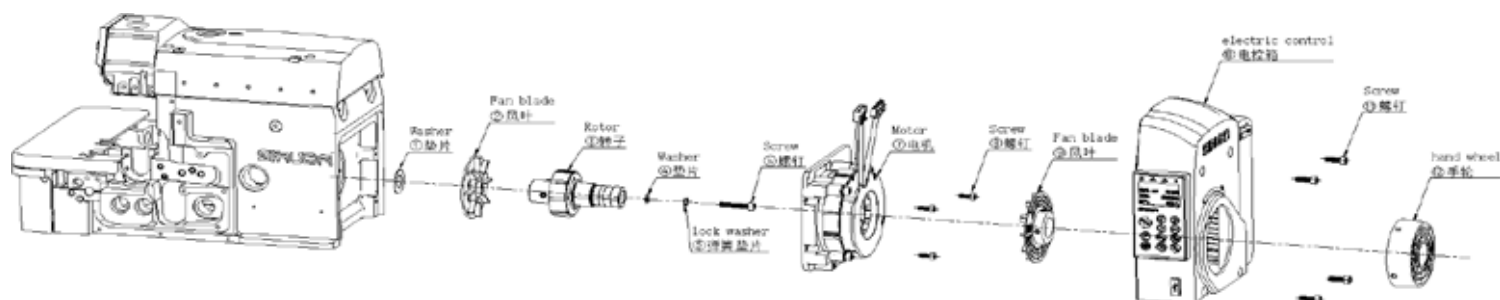
System parameter list	Function description	Parameter default values	Parameter Adjustment range	Parameter description
P-01	Operate mode	0	0~1	0: semi automatic 1: fully automatic
P-02	sensor switch	1	0~1	0:Closed 1:Open
P-03	cutting line	3	0~3	0: close 1: before the cut line 2: after the cut line 3: before and after the shear line
P-04	suction	3	0~3	0: closed 1: before the inspiration 2: after the inspiration of 3: before and after the inspiration
P-05	back pulley wheel	0	0~2	0: close 1: sewing in 2: after sewing
P-06	foot presser	3	0~3	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	start speed mode	1	0~1	0: automatic 1: pedal
P-08	needle positio	0	0~1	0:Upper pin position 1: a needle
P-09	machine stop auto foot presser lifting	0	0~1	0:Closed 1:Open
P-10	suction by hand	1	0~1	0:Closed 1:Open
P-11	start sewing speed	4800	200~5500	
P-12	Max speed	5000	200~5500	
P-13	the degree of the working LED light	4	0~5	
P-14	the backlight degree	1	0~1	0:Closed 1:Open
P-15	semi-auto continue sewing	0	0~1	0:Closed 1:Open
P-16	semi-auto constant sewing	0	0~1	0:Closed 1:Open

P-17	front foot presser lift	0	0~1	0: automatic mode 1: manual mode
P-18	foot controller cutting line	0	0~2	0: closed 1: full manual 2: free stitch semi-automatic
P-19	middle suction	1	0~1	0:Closed 1:Open
P-20	half back foot resser lift	0	0~1	0:Closed 1:Open
P-21	foot presser lift after cutting	0	0~1	0:Closed 1:Open
P-22	close manual foot presser lift	0	0~1	0:Closed 1:Open
P-23	start free sewing	0	0~1	0:Closed 1:Open
P-24	back cutting line sensor delay check	1	0~1	0:Closed 1:Open
P-25	thread tension releasing	3	0 ~ 3	0: close 1: front thread tension releasing 2: back thread tension releasing 3: front and back thread tension releasing
P-26	auto running	0	0~1	0:Closed 1:Open
P-27	auto runningn time	6	3~20	The time unit is: Second
P-28	auto running stop time	2	2~20	The time unit is: Second
P-29	Electronic Control Version			
P-30	Panel Version			
P-31	volume adjustment	020	020	
P-32	close the start voice	0	0 ~ 1	0: close 1: open
P-33	Net cloth mode	0	0-1	0: close 1: open
P-34	Forbid upper needle stop position	0	0-1	0: close 1: open
P-35	Count of thread trimming times	0		

P-36	Stop sewing speed	5500	200-6500	
P-37	Constant speed thread trimming mode	1	0-3	
P-38	Automatic control mode	0	0-1	
P-39	Automatic up needle position after starting	0	0-1	
P-40	Minimum speed	250	250-6500	
P-41	Sensor version			

MOTOR INSTALLATION INSTRUCTIONS AND PRECAUTIONS

1. Motor electric control box installation:



A: installation of motor:

Fix the special positioning tool into the machine principal axis, install the motor (⑦ in the installation diagram) onto the tool, fix the motor with the screws (⑧ in the installation diagram), and the tool should be pulled out easily.

(Noted: take care of the hands when setting the rotor because of the magnet force)

B: installation of rotor:

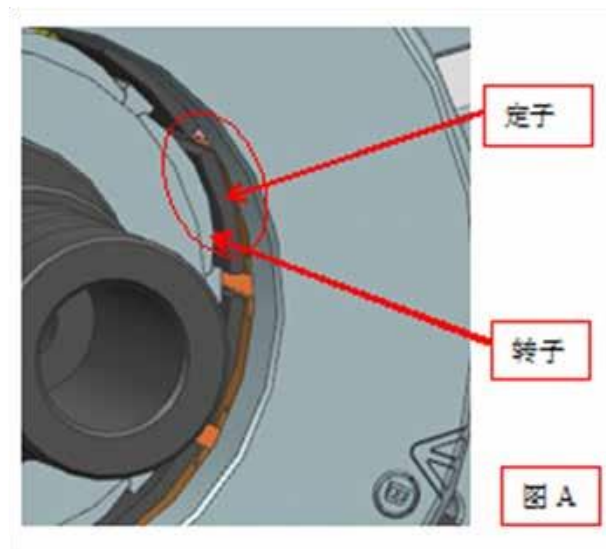
Install the spacer (⑦), fan blade (②) and rotor (③) into the machine principal axis, fix the rotor and fan blade with the spacer (④), spring washer (⑤) and crew (⑥), then tighten the screw to fix the rotor (③) with the inner hexagon spanner.

Check 1: the fan blade should not run round when holding the rotor.

Check 2: the machine should not overweight when turning around the machine.

C: check the setting of rotor and stator:

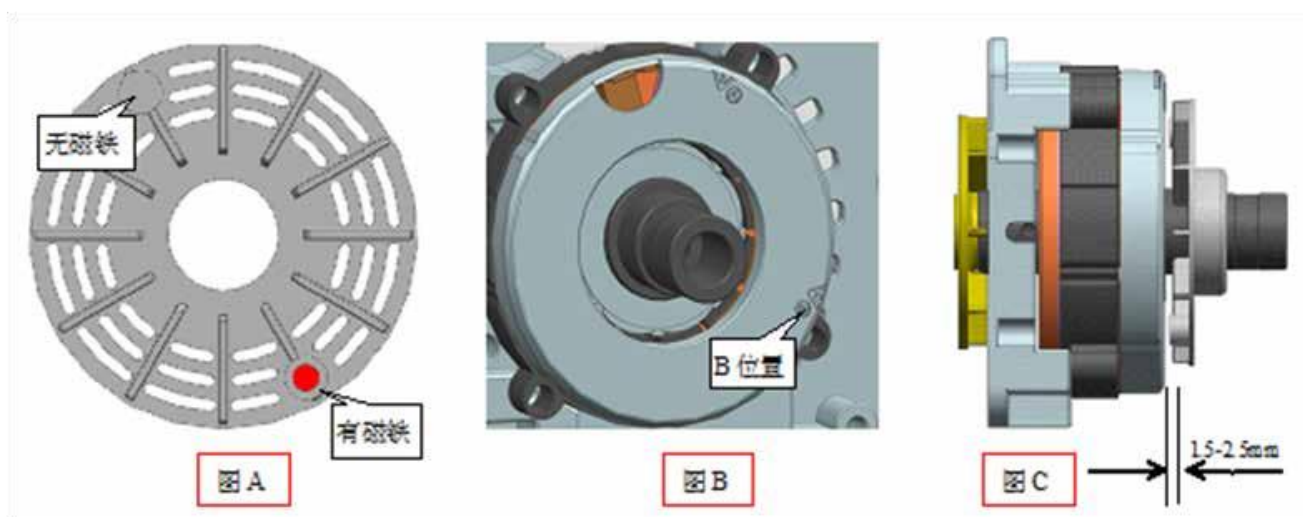
Check the plane of the rotor and stator, the error value should less than 1.5MM (cutaway view A), reset the rotor and stator and add the spacer to adjust if the error value more than 1.5MM. (The calorific value will higher than normal and the torque will reduce if the error value is more than 1.5MM)



D: fan blade installing:

1) Turn the machine to adjust the needle to the highest position.

2) Set the fan blade onto the rotor and point the position without magnet (pic A) at the position B on the motor (pic B). Tighten the screws (Ⓐ in the installation diagram) with the inner hexagon spanner make sure, the space between the fan blade and motor is in the range of 1.5MM-2.5MM (pic C).



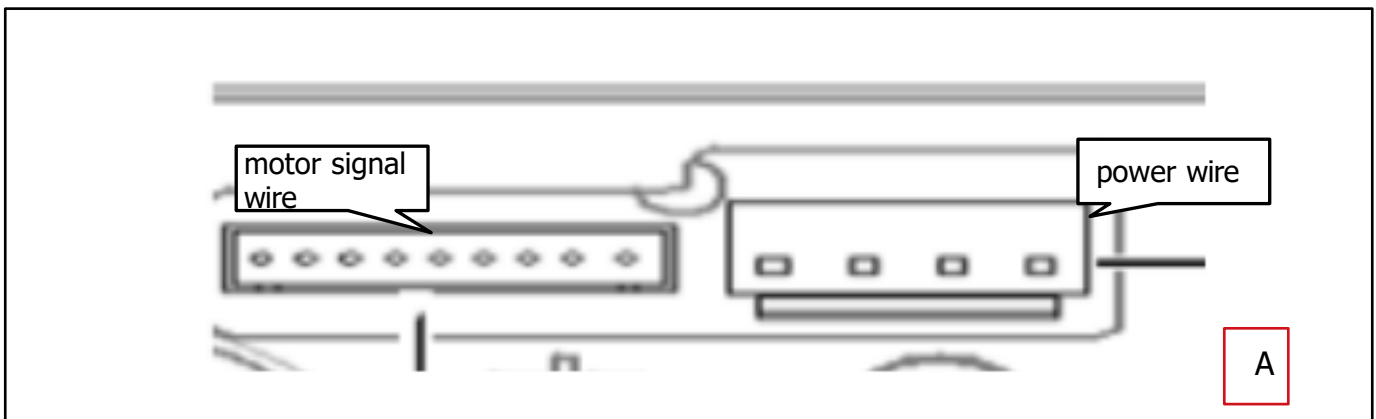
E: controller installing:

1) Connect the motor signal wire and the power wire into the controller plugs (⑦ in the installation diagram, check the direction of the plugs).

2) Install the controller onto the Machine (⑩ in the installation diagram), fix it with the screws (pic ④).

Check 1: check if the motor signal wire or the power wire is pinned.

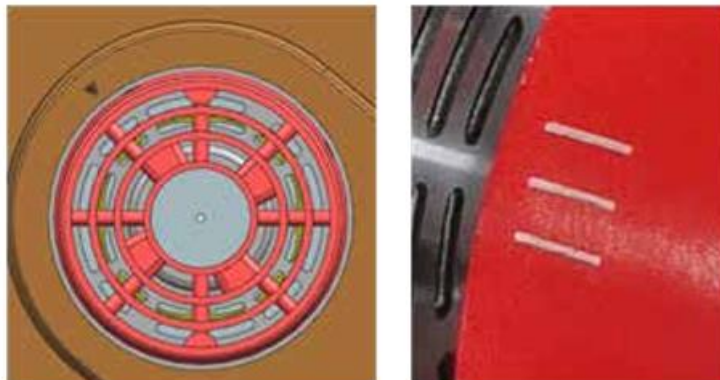
Check 2: check if the controller suits to the machine.



Handwheel installing:

1) Turn the machine, adjust the needle to the highest position.

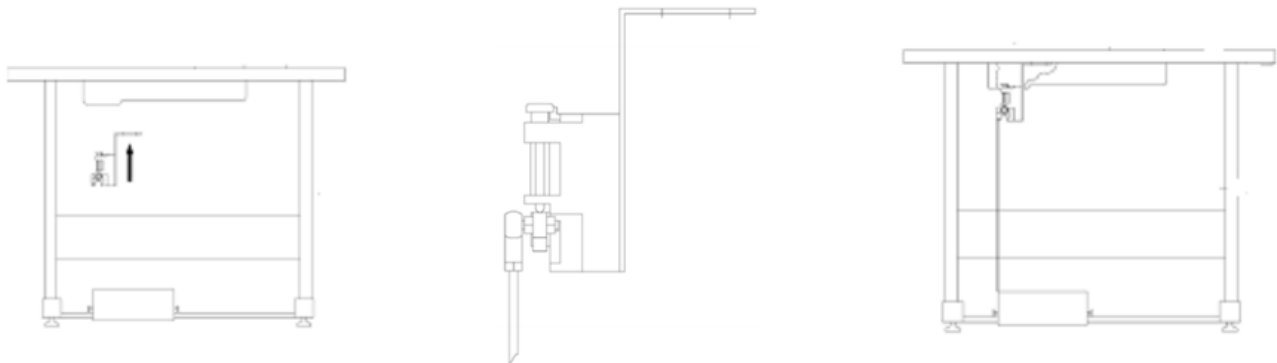
2) Install the handwheel (in the installation diagram) onto the rotor, point the middle mark on the handwheel at the triangular sign on the controller, tighten the screws with the inner hexagon spanner (as following pic ⑫).



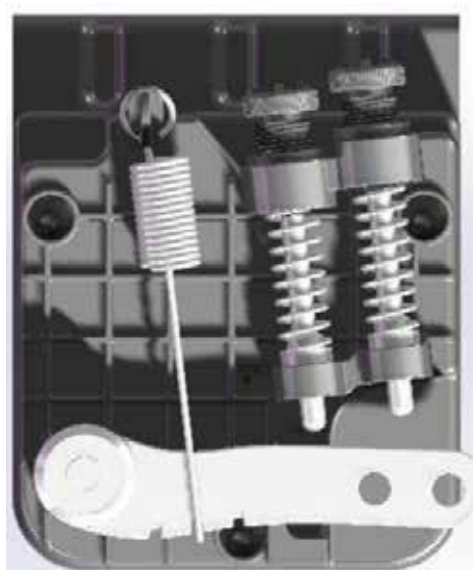
2. Installing and adjusting of speed controller:

A. Installing of the speed controller:

- 1) Install the speed controller under the table
- 2) Fix the pedal and the speed controller
- 3) The installation diagram

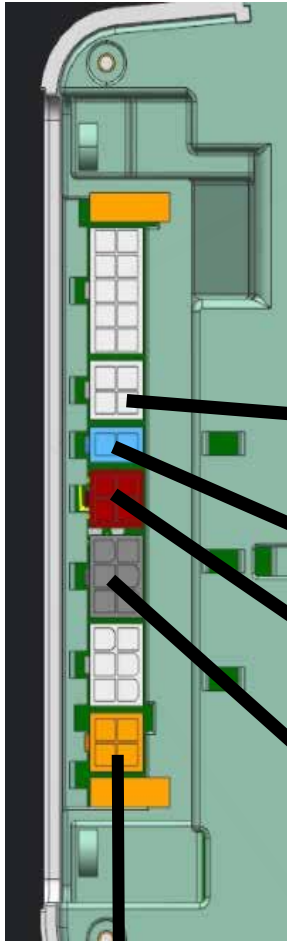


B. Power adjusting of the backward pushing:



Adjustment requires	Adjustment result
Adjustment of the pedal backward pushing power	The power will be stronger when fix the screw downward. The power will be weak stronger when fix the screw upward.

CONTROL BOX INTERFACE INSTRUCTION



Port Number	Port connector name	erminal socket description		Port color
1	Up sensor wire	GND	IR2 transmission	White
		LED " — "	IR1 transmission	
		5V	thread trimming signal	
		5V	IR3 transmission	
		GND	reserved	
2	Down sensor wire	5V	IR1 transmission	White
		5V	IR2 transmission	
3	The third sensor wire	5V	IR3 transmission	Blue
4	Sewing plate secure fully open light port	5V	GND	Red
		signal	reserved	
5	The foot presser safe switch wire	5V	GND	black
		signal		
		IR3 transmission	5V	
6	stepper motor signa wire		origin signal	White
		GND	signal A	
		5V	signal B	
7	stepper motor phase line port	W	V	White
		PE	U	

ERROR CODE RESOLUTION

Error Code	Error Description	the reason of the Error	the resolution of the error
Er01	not find needle position	Poor connection of the motor signal wire	Turn off the controller and check the motor signal plug if it is poor connected, restart the controller. Contact with the after sales if the problem still occur.
Er02	Foot controller signal error	1: The pedal do not connect when boot on 2: Poor connection of the pedal wire 3: Backward push the pedal when boot on	Turn off the controller and check the connection between the pedal and the controller, restart the controller. Contact with the after sales if the problem still occurs.
Er03	Motor phase signal error	Motor phase signal error	Turn off the controller and check the connection between the motor and the controller, restart the controller. Contact with the after sales if the problem still occur.
Er04	Motor locked rotor protection	1: sewing machine is overweight or blocked 2: Overload of the motor 3: Poor connection of the motor power wire	Turn off the controller 1、 Check the machine if stuck 2、 Check the motor if stuck 3、 Poor connection of the motor power plug, restart the controller. Contact with the after sales if the problem still occur.
Er05	Hardware overload protection	1: Overload of the motor 2: Poor connection of the motor signal wire	Turn off the controller 1、 Check the machine if stuck 2、 Check the motor if stuck 3、 Poor connection of the motor power plug, restart the controller. Contact with the after sales if the problem still occur.
Er07	Serial communication timeout	1: Poor connection of the display 2: Damage of the controller mainchip	1: Check the wire between the display and controller 2: Check if the pedal is good or not 3: Check if there is high frequency machine interference 4: Change the display
Er09	memory error	Memory on mainboard damage or error	Contact with the after sales for the controller problem

Er10	Sensor control line error	Poor connection between the display and the controller	1: The damage of the display 2: Poor connection of the sensor wire, contact with the after sales.
Er15	the motor board error		Contact with the after sales
Er16	Over load	The voltage is higher than limited	Check if the voltage is higher than AV260V, contact with the after sales if the problem can not be solved
Er17	A current checking error		Contact with the after sales
Er18	B current checking error		Contact with the after sales
Er19	A&B current checking error		Contact with the after sales
Er20	Less volt error	The voltage is lower than limited	Check if the voltage is lower than AV180V, contact with the after sales if the problem cannot be solved
Er22	Pedal error	1. Pushing the pedal when boot on 2. The wrong value of the pedal	1. Push the pedal again to disengage 2. Press P and trimmer key to enter the maintenance parameters, press OK when on the pedal interface, check the value if it is $200 \pm 15\%$ when the pedal do not work, change it if the value is abnormal
ER-35	Stepping motor hardware over current protection	1: Check the connection of the stepper motor signal wire 2: Check the connection of the stepper motor power wire	Contact with the afters sales if can not solve the problem
ER-37	Stepping motor phase A current detection failure	Damage of the controller mainchip	Contact with the after sales
ER-38	Stepping motor phase B current detection failure	Damage of the controller mainchip	Contact with the after sales
ER-39	Stepping motor phase A B current detection failure	Damage of the controller mainchip	Contact with the after sales
ER-45	Stepping motor encoder failure	Check if the stepper motor signal wire is poor connected	Contact with the afters sales if can not solve the problem

DEMOLITION PROCEDURE

When the machine needs to be eliminated and demolished, certain basic rules must be observed to protect the environment and public health.

1. All machine components 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.
2. 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.



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由於對產品的改良及更新，本產品使用說明書中與零件圖之產品及外觀的修改恕不事先通知！
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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