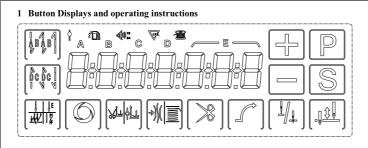
▲Safety Instruction

- 1. Users are required to read the operation manual completely and carefully before installation or operation.
- 2. All the instruction marked with sign ▲ must be observed or executed; otherwise, bodily injuries might occur.
- The product should be installed and pre-operated by well trained persons.
 For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection.
- When connecting hower supply cords to power sources, it is necessary to make sure that the power voltage is lower than 250 VAC and matches the rated voltage indicated on the motor's name plate.
- \triangle *Attention: If the Control Box is AC 220V system, please don't connect the Control Box to AC 380V power outlet. Otherwise, the error will occur and motor will not work. If that happens, please turn off the power immediately and check the power voltage.
- 6. Don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 5°C.
- 7. Please avoid operating near the heater at dew area or at the humidity below 30% or above 95%
- 8. Don' t operate in area with heavy dust, corrosive substance or volatile gas.
- Don't operate in area with neary dust, conside substance of volatile gas.
 Avoid power cord being applied by heavy objects or excessive force, or over bend.
 The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductions and terminals. This connection should be fixed permanently.
 All the moving portions must be prevented to be exposed by the parts provided.
- 12. Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
- 13. Turn off the power before the following operation:
- a) Connecting or disconnecting any connectors on the control box or motor.
 b) Threading needle.
- c) Raising the machine head.
- d) Repairing or doing any mechanical adjustment.
- e) Machines idling.
- 14. Repairs and high level maintenance work should only be carried out by electronic technicians with appropriate training. 15. All the spare parts for repair must be provided or approved by the manufacturer.
- 16. Don't use any objects or force to hit or ram the product.
- Guarantee Time
- Warranty period of this product is 1 year dated from purchasing, or within 2 years from ex-factory date.

Warranty Detail:

- Any trouble found within warranty period under normal operation, it will be repaired free of charge. However, maintenance cost will be charged in the following cases even if within warranty period:
- Inappropriate use, including: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operation without the precaution, or operation out of its specification range, or inserting other objects or liquids into the product.
- 2. Damage by fire, Earth quake, lighting, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments
- 3. Dropping after purchasing or damage in transportation by customer himself or by customer's shipping agency Note: We make our best effort to test and manufacture the product for assuring the quality.
- However, it is possible that this product can 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 guarantee the good earth and it's also recommended to install a failsafe device. (Such as residual current breaker)

P31	The strength of the motor torque when thread trimming	0-100	60	The larger the value the greater the intensity, the adjustment is too large may cause the motor abnormalities.
P32	Bar-Tacking compensation 5	0-200	138	Compensation for A,C part of Bar-Tacking.
P33	Bar-Tacking compensation 6	0-200	153	Compensation for B,D part of Bar-Tacking.
P34	Constant-Stitch Sewing running mode selection	A/M	А	A: Automatically perform actions M: Could be arbitrarily stop and start
P36	Thread slacking function selection	0-11	5	0: OFF 1-11:The strength of thread slacking
P37	Automatic thread wiping function / Automatic thread clamping function selection	0-11	8	0 : OFF 1: Automatic thread wiping Function 2-11: Automatic thread clamping Function and th strength of automatic thread clamping.
P38	Automatic thread trimming function selection	ON/OFF	ON	
P39	Automatic presser foot lifting when pause function selection	UP/DN	DN	UP: ON DN: OFF
P40	Automatic presser foot lifting after trimming function selection	UP/DN	DN	UP: ON DN: OFF
P41	Counter display	0-9999		Display the quantity of finished sewing piece.
P42	Information Display			N01 The control system version number N02 The panel version number N03 Speed N04 The pedal AD N05 The mechanical angle(up position) N06 The mechanical angle(down position) N07 Busbar voltage AD N12 Kneeling device position sensor AD
P43	Direction of Motor Rotation	CCW/C W	CCW	CW: Clockwise CCW: Counter Clockwise
P44	The rate of normal stop	1-45	20	
P45	Back-tacking operation duty cycle (%)	1-50	30	Back-tacking operate in duty cycle to save electricity and protect the electromagnet from over-heat.
P46	Motor stop with a reverse angle after trimming function	ON/OFF	OFF	
P47	Adjust the reverse angle when motor stop after trimming	50-200	160	
P48	The minimum speed Limit (rpm)	100-500	210	Adjust the minimum speed
P49	Thread trimming speed (rpm)	100-500	250	Adjust thread trimming speed
P50	Toot lifter operation time to full output (ms)	10-990	200	
P51	Presser foot lifter operation duty cycle (%)	1-50	25	Presser foot lifter operate in duty cycle to save electricity and protect the electromagnet from over-heat.
P52	Motor starting delay time (ms)	10-990	300	Delay the start time, with automatic presser fo down.
P53	Half back pedaling lifting presser foot function to cancel	ON/OFF	OFF	ON: Function to cancel OFF: Half back pedaling lifting presser foot
P54	Thread trimming action time (ms)	10-990	200	Completion of the thread trimming action
P55	Thread wiping action time (ms)	10-990	30	Completion of the thread wiping action required time.
P56	Power on and positioning	0-2	1	0: always not to find the up needle position 1: always to find the up needle position 2:If the motor is not into the up needle position, will find the up needle position



1.1 Key Description

Name	V····	Indicate			
	Key	Indicate			
Function Parameter Edit		Press this key to enter or exit function parameter edit mode.			
Setting Parameter Check And Save	S	For the content of the selected parameters check and save: after select parameter press this key to check and modify operation, after modified parameter value press this key to exit and save the parameter.			
Set value increment / parameter increment key		 A, B, C, D, E, F, G, H section, increase the number of setting stitch. Increase the parameter in parameter selection. Increase the setting value in parameter value. Under the main interface click can increase sewing speed. 			
Set value decrement / parameter decrement key		 A、B、C、D、E、F、G、H section, decrease the number of setting stitch. Decrease the parameter in parameter selection. Decrease the setting value in parameter value. Under the main interface click can decrease sewing speed. 			
Back-tacking Selection	ABAB!	Execution starting back seam B segment or execution starting back seam (A, B segment) 1 Execution starting back seam (A, B segment) 2 times. if long press, can increase screen backlighting brightness.			
End Back-tacking Selection		Execution terminates back seam C segment or execution terminates back seam (C, D segment) 1 Execution terminates back seam (C, D segment) 2 time. if long press, can decrease screen backlighting brightness			
Free Sewing returns to neutral		As the treadle is toed down, machine will start sewing. Once the treadle returns to neutral, machine will stop immediately. As the treadle is heeled back, machine will automatically start trimming cycle.			
Constant Stitch Sewing	Ę	Execute section E constant stitch sewing.			
2					

151 1600 mill of picele for the for 170 Up position adjustment, the needle will advance stop when the value accreased, the needle will delay stop when the value increased. P58 Up needle position adjustment 0-1439 40 When the value increased. P59 Down needle position adjustment 0-1439 650 When the value increased. P50 Down needle position adjustment 0-1439 650 When the value increased. P60 Testing Speed (rpm) 100-2200 2200 Setting testing speed. P61 Testing G ON/OFF OFF Start and stop testing with all functions. P63 Testing C ON/OFF OFF Start and stop testing with all functions. P64 Running Time of Testing B and C 1-250 20 0 Disable P65 Stop Time of Testing B and C 1-250 20 0 Disable P76 Thread trimming protection switch ON/OFF OFF Start and stop testing value and testing value and value andvalue and value andvalue and value andvalue and va	P57	Held time of more fact lifes (a)	1-120	10	Forced shut-down after hold time.
P58 Up needle position adjustment 0-1439 40 when the value increased, the needle will delay stop when the value increased, the needle will delay stop when the value increased. P59 Down needle position adjustment 0-1439 650 Down position adjustment, the needle will delay stop when the value increased. P60 Testing Speed (rpm) 100-220 2200 Setting testing speed. P61 Testing C ON/OFF OFF Start and stop testing with all functions. P63 Testing C ON/OFF OFF Start and stop testing with all functions. P64 Running Time of Testing B and C 1-250 20 - P65 Stop Time of Testing B and C 1-250 20 - P76 Machine protection switch selection 0-2 1 1: Testing zero signal P77 Presser foot release operation duty cycle 0-50 0 The buffer force of presser foot release operation. P77 Presser foot release operation duty cycle 0-1439 Hand rotation manual to the appropriate position, press S key to save P78 Down needle position adjustment 0-1439 Ibar dration manual to the appropriate position, press S key to save P78 Down needle position adjustment 0-1439 Ibar dration manual to the appropriate position, press S key to save <	121	Hold time of presser foot lifter (s)	1-120	10	
P59 Down needle position adjustment 0-1439 650 when the value facerased, the needle will delay stop when the value increased when the value increased with all functions. P60 Testing A ON/OFF OFF Start and stop testing with all functions. P61 Testing C ON/OFF OFF Start and stop testing with all functions. P63 Torsting Time of Testing B and C 1-250 20 P66 Machine protection switch selection 0-22 1 0 P70 The factory Type Selection 0 0 The buffer force of presser foot release operation. P71 Preser foot release operation duty cycle (%) 0-63 0 The full for force of presser foot release operation. P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Back-tacking operation time to full output (ms) 10-990 200 P79 The stop angle of thread clamping 5-359 150 P78 The stop angle of thread clamping 5-359 150 P79 The stop angle of thread	P58	Up needle position adjustment	0-1439	40	when the value decreased, the needle will delay stop when the value increased.
P60 Testing Speed (rpm) 100-2200 Setting testing speed. P61 Testing A ON/OFF OFF Continuous running testing. P62 Testing B ON/OFF OFF Start and stop testing with all functions. P63 Testing C ON/OFF OFF Start and stop testing without all function. P64 Running Time of Testing B and C 1-250 20 P66 Machine protection switch selection 0-2 1 1: Testing zero signal P70 Thera dtrimming protection switch selection ON/OFF OFF OFF OFF P71 Presser foot release operation duty cycle (%) 0-50 0 The buffer force of presser foot release operation. P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 The start angle of thread clamping 5-359 100 P74 The start angle of thread clamping 5-359 150 P78 The start angle of thread trimming 5-359 150 P78 The start angle of thread trimming 5-359 150 P78 The start angle of thread trimming 5-359 150 P78 The stop angle of thread trimming 5-359 150	P59	Down needle position adjustment	0-1439	650	when the value decreased, the needle will delay stop
P20 Testing B ONOFF OFF Start and stop testing with all functions. P63 Testing C ONOFF OFF Start and stop testing with all functions. P64 Running Time of Testing B and C 1-250 20 P65 Stop Time of Testing B and C 1-250 20 P66 Machine protection switch selection 0-2 1 1. Testing zero signal P70 The factory Type Selection ONOFF OFF OFF OFF P71 Presser foot release operation duty cycle 0-50 0 The buffer force of presser foot release operation. P71 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full 10-990 200 P78 The start angle of thread clamping 5-359 100 P78 The start angle of thread clamping 5-359 100 P78 The start angle of thread trimming 5-359 18 P81 The angle of the motor start to increase torque when thread trimming 5-359 150 P78 The stop angle of thread trimming <td< td=""><td>P60</td><td>Testing Speed (rpm)</td><td>100-2200</td><td>2200</td><td></td></td<>	P60	Testing Speed (rpm)	100-2200	2200	
100 10000 1000 10000 1000 1000 10000 1000 10000 1000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000	P61	Testing A	ON/OFF	OFF	Continuous running testing.
Peter Running Time of Testing B and C 1-250 20 P66 Stop Time of Testing B and C 1-250 20 P66 Machine protection switch selection 0-2 1 1: Testing zero signal P67 Thread trimming protection switch selection 0-2 1 1: Testing zero signal P67 The factory Type Selection 0-2 0 0 The buffer force of presser foot release operation. P71 Presser foot release operation duty cycle 0-50 0 The buffer force of presser foot release operation. P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P77 The start angle of thread clamping 5-359 180 P78 The start angle of thread trimming 5-359 150 P80 The start angle of thread trimming 5-359 150 P81 The angle of the motor start to increase to a s0*, the value need greater than the P80 parameter item) P82 The angle of the motor start to increase to a s159 57 P84 The angle of the motor stop to	P62	Testing B	ON/OFF	OFF	Start and stop testing with all functions.
P65 Stop Time of Testing B and C 1-250 20 0: Disable P66 Machine protection switch selection 0-2 1 1: Testing zero signal P71 Presser foot release operation duty cycle 0-50 0 The buffer force of presser foot release operation. P71 Presser foot release operation duty cycle 0-1439 Hand rotation manual to the appropriate position, press S key to save P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 180 P80 The start angle of thread trimming 5-359 18 P81 The angle of the motor start to increase torque when thread trimming 5-359 185 P82 The stop angle of thread trimming 5-359 185 Foreet back angle of thread trimming setting Dow position as 0°	P63	Testing C	ON/OFF	OFF	Start and stop testing without all function.
100 100 100 100 100 100 Disable 11 11 Testing zero signal 2: Testing zero signal 12: Testing positive signal 2: Testing positive signal 160 Thread trimming protection switch ON/OFF OFF OFF: Disable ON: Enable 170 The factory Type Selection 0 0: The buffer force of presser foot release operation. 171 Preser foot release operation duty cycle 0.50 0 The buffer force of presser foot release operation. 172 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save 173 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save 176 Back-tacking operation time to full 10-990 200 178 The start angle of thread clamping 5-359 100 179 The start angle of thread clamping 5-359 150 180 The atra angle of thread trimming 5-359 150 1981 The start angle of thread trimming 5-359 150	P64	Running Time of Testing B and C	1-250	20	
P66 Machine protection switch selection 0-2 1 1: Testing zero signal 2: Testing positive signal P67 Thread trimming protection switch selection ON/OFF OFF OFF: Disable ON: Enable P70 The factory Type Selection O OFF: Disable ON: Enable P71 Presser foot release operation duty cycle (%) 0-1439 Hand rotation manual to the appropriate position, press S key to save P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P778 The start angle of thread clamping 5-359 150 Torque angle of thread trimming setting (Down position as 0°, the value need greater than the P80 parameter item) P81 The stop angle of thread trimming 5-359 150 Shear line infeed id angle setting(Under defined as 0°) P60 P82 The stop angle of thread trimming 5-359 150 Shear line infeed id angle setting (Under defined as 0°) P60	P65	Stop Time of Testing B and C	1-250	20	
P67 selection CNOFF OFF Dash Dash <th< td=""><td>P66</td><td>Machine protection switch selection</td><td>0-2</td><td>1</td><td>1: Testing zero signal</td></th<>	P66	Machine protection switch selection	0-2	1	1: Testing zero signal
P71 Presser foot release operation duty cycle (%) 050 0 The buffer force of presser foot release operation. P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 100 P79 The start angle of thread clamping 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The start angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor stap to increase torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing </td <td>P67</td> <td></td> <td>ON/OFF</td> <td>OFF</td> <td>OFF: Disable ON: Enable</td>	P67		ON/OFF	OFF	OFF: Disable ON: Enable
P71 (%) 1 0.50 0 1 Include of pressed notal release operation. P72 Up needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 180 P80 The start angle of thread clamping 5-359 18 P81 The start angle of the motor start to increase torque when thread trimming 5-359 185 P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting(Down position as 0°, the value need greater than the P80 parameter item) P82 The stop angle of the motor start to increase torque when sewing 0-359 9 9 P84 The angle of the motor start to increase torque when sewing 0-359 57 1600 was set, please do not change the values (parameter value angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-3	P70	The factory Type Selection			
P72 Up needle position adjustment 0-1439 key to save Hand rotation manual to the appropriate position, press S key to save P73 Down needle position adjustment 0-1439 Hand rotation manual to the appropriate position, press S key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 100 P78 The stop angle of thread clamping 5-359 18 Shear line infeed id angle setting(under defined as 0°) P78 The stop angle of thread trimming 5-359 150 Torque angle of thread trimming setting(Down position as 0°, the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P84 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor stap to increase torque when sewing 0-359 9 Feeder back angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P92 Correct the electrical angle of motor 0-359 <td>P71</td> <td></td> <td>0-50</td> <td>0</td> <td>The buffer force of presser foot release operation.</td>	P71		0-50	0	The buffer force of presser foot release operation.
Pr/s Down needle position adjustment 0-14.99 key to save P76 Back-tacking operation time to full output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 100 P78 The start angle of thread clamping 5-359 350 P80 The start angle of thread clamping 5-359 18 Shear line infeed id angle setting(Under defined as 0°) P81 The angle of the motor start to increase torque when thread trimming 5-359 150 as 0° , the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 Feeder back angle of thread trimming setting Down parameter item) P85 The angle of the motor start to increase torque when sewing 0-359 57 Review the user manual 1.5 P86 The angle of motor stop to increase torque when sewing 0-359 57 Reading the initial Angle of encoder, the factory defaul was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the alsolacking 1-359 130 Loose wire end angle (defined as 0° under calculation)	P72	Up needle position adjustment	0-1439		Hand rotation manual to the appropriate position, press S key to save
P76 output (ms) 10-990 200 P78 The start angle of thread clamping 5-359 100 P79 The start angle of thread clamping 5-359 350 P78 The start angle of thread clamping 5-359 18 P80 The start angle of thread clamping 5-359 18 P81 The start angle of thread trimming 5-359 18 P81 The start angle of thread trimming 5-359 150 P82 The stop angle of thread trimming 5-359 185 P84 The stop angle of thread trimming 5-359 185 P84 The stop angle of thread trimming 5-359 9 P84 The angle of the motor start to increase torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing 0-359 57 P82 Correct the electrical angle of motor 1600 was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 1-359 30 P100 The start angle of thread slacking 1-359 30 P101 The start angle of thread slacking 1-359 30 <td>P73</td> <td>Down needle position adjustment</td> <td>0-1439</td> <td></td> <td>Hand rotation manual to the appropriate position, press S key to save</td>	P73	Down needle position adjustment	0-1439		Hand rotation manual to the appropriate position, press S key to save
Prod The stop angle of thread clamping 5-359 350 P80 The stop angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The angle of the motor start to increase torque when thread trimming 5-359 150 as 0°, the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting (Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 P88 The angle of the motor stop to increase torque when sewing 0-359 57 P82 Correct the electrical angle of motor 0-359 57 P92 Correct the electrical angle of motor 160 was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 1-359 130 Song line start angle (defined as 0° under calculation) P102 The stop angle of thread slacking <t< td=""><td>P76</td><td>0.1</td><td>10-990</td><td>200</td><td></td></t<>	P76	0.1	10-990	200	
P17 The stap angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The star angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The star angle of thread trimming 5-359 18 Shear line infeed id angle setting(under defined as 0°) P81 The star angle of thread trimming 5-359 150 Torque angle of thread trimming setting(Down position as 0° , the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down position as 0° , the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing 0-359 57 P84 The angle of motor 160 was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 1-359 180 Loose wire end angle (defined as 0° under calculation) P101 The start angle of thread slacking 1-359 180 Loose wire	P78	The start angle of thread clamping	5-359	100	
100 100 100 100 100 P81 The angle of the motor start to increase torque when thread trimming 5-359 150 Torque angle of thread trimming setting(Down position as 0°, the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feder back angle of thread trimming setting(Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing 0-359 57 P82 Correct the electrical angle of motor 0-359 57 P92 Correct the electrical angle of motor 1600 Review the user manual 1.5 Reading the initial Angle of encoder, the factory defaul was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10-900 300 P101 The stop angle of thread slacking 1-359 30 Song line start angle (defined as 0° under calculation) P102 The delay time of the presser foot release damping force (ms) 0-990 0 0 P111 Electromagnet overcurrent protection selectrom 0-1 1 0: OFF 1: ON	P79	The stop angle of thread clamping	5-359	350	
P81 The angle of the motor start to increase torque when thread trimming 5-359 150 as 0°, the value need greater than the P80 parameter item) P82 The stop angle of thread trimming 5-359 185 Feeder back angle of thread trimming setting Down position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 P85 The angle of the motor start to increase torque when sewing 0-359 57 P92 Correct the electrical angle of motor 0-359 57 Reading the initial Angle of encoder, the factory defaul was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10.900 300 Song line start angle (defined as 0° under calculation) P102 The stop angle of thread slacking 1-359 180 Loose wire end angle (defined as 0° under calculation) P117 The delay time of the presser foot selection 0-990 0	P80	The start angle of thread trimming	5-359	18	Shear line infeed id angle setting(under defined as 0°)
P82 The stop angle of thread trimming 5-359 185 position as 0°, the value need greater than the P80 parameter item) P84 The angle of the motor start to increase torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing 0-359 57 P82 Correct the electrical angle of motor 0-359 57 P92 Correct the electrical angle of motor 160 Review the user manual 1.5 Reading the initial Angle of encoder, the factory default was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10-900 300 P100 The stop angle of thread slacking 1-359 30 Song line start angle (defined as 0° under calculation) P102 The delay time of the presser foot release damping force (ms) 0-990 0 0 P111 Electromagnet overcurrent protection selection 0-11 1 0: OFF 1: ON	P81	e	5-359	150	Torque angle of thread trimming setting(Down position as 0° , the value need greater than the P80 parameter item)
P84 torque when sewing 0-359 9 P85 The angle of the motor stop to increase torque when sewing 0-359 57 P92 Correct the electrical angle of motor 160 Review the user manual 1.5 Reading the initial Angle of encoder, the factory defaul was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10-900 300 P101 The stop angle of thread slacking 1-359 180 Loose wire end angle (defined as 0° under calculation) P117 The delay time of the presser foot release damping force (ms) 0-990 0 P110 Election 0-11 1 0: OFF 1: ON	P82	The stop angle of thread trimming	5-359	185	Feeder back angle of thread trimming setting Down position as 0° , the value need greater than the P80 parameter item)
P85 torque when sewing 0-539 57 P92 Correct the electrical angle of motor Review the user manual 1.5 Reading the initial Angle of encoder, the factory default was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10.900 300 P101 The stop angle of thread slacking 1-359 30 P102 The stop angle of thread slacking 1-359 180 Loose wire end angle (defined as 0° under calculation) P107 The delay time of the presser foot release damping force (ms) 0-990 0 P110 Electromagnet overcurrent protection 0-1 1 0: OFF 1: ON	P84		0-359	9	
P92 Correct the electrical angle of motor 160 Review the user manual 1.5 Reading the initial Angle of encoder, the factory defaul was set, please do not change the values (paramete value cannot be changed manually, random change it wil result the control box and motor abnormal or damaged). P93 The delay time of the half back pedaling function 10-900 300 P101 The start angle of thread slacking 1-359 30 Song line start angle (defined as 0° under calculation) P102 The start angle of thread slacking 1-359 180 Loose wire end angle (defined as 0° under calculation) P117 The delay time of the presser foot selection 0-990 0 0 P110 Electromagnet overcurrent selection 0-1 1 0: OFF 1: ON	P85	с i	0-359	57	
P93 function 10900 300 P101 The start angle of thread slacking 1-359 30 Song line start angle (defined as 0° under calculation) P102 The stop angle of thread slacking 1-359 180 Loose wire end angle (defined as 0° under calculation) P117 The delay time of the presser foot release damping force (ms) 0-990 0 P118 Electromagnet overcurrent protection selection 0-1 1 0: OFF 1: ON	P92			160	Reading the initial Angle of encoder, the factory default was set, please do not change the values (parameter value cannot be changed manually, random change it will
P102 The stop angle of thread slacking 1-359 180 Loss wire end angle (defined as 0° under calculation) P117 The delaytime of the presser foot release damping force (ms) 0-990 0 0 P110 Electromagnet overcurrent protection 0-1 1 0: OFF 1: ON	P93	, , , ,			
P117 The delaytime of the presser foot release damping force (ms) 0.990 0 P119 Electromagnet overcurrent protection selection 0-1 1 0: OFF 1: ON	P101	The start angle of thread slacking			Song line start angle (defined as 0° under calculation)
P117 release damping force (ms) 0-990 0 P119 Electromagnet overcurrent protection selection 0-1 1 0: OFF 1: ON	P102	The stop angle of thread slacking	1-359	180	Loose wire end angle (defined as 0° under calculation)
P119 selection 0-1 1 0: OFF 1: ON	P117		0-990	0	
P120 The oil level alarm switch selection 0-1 0 0: OFF 1: ON	P119	· ·	0-1	1	0: OFF 1: ON
	P120	The oil level alarm switch selection	0-1	0	0: OFF 1: ON

Continuous Back Seam			e treadle is toed down, all the seams of bar-tacking will be d with E times, and then the thread will automatically be . Note: When the bar-tacking sewing starts, will not stop until the g cycle finished, except for the treadle heeled back to cancel the					
set needle /				lti-section stitching function, when the display shows the icon, the on of multi-section needle stitch function.				
Autom Trigger	atically Button	[(Valid only the Constant-Stitch Sewing) when the one-shot sewin, function ON, screen display the icon. one-shot pedal, it can automatic completion the setting of sewing process. If long press, can restore factory setting. 					
	atic Foot Setting	Xultur	is lightin 2. Auto lighting. 3. Autor wher	g. matic presser f natic presser fo n XI & icon an	foot lifting oot lifting a d i <u>i</u> t ico	after trimming function when \ \L icon after pause function when \ \L icon is after pause function or trimming function n are lighting. \ \L icon and \ \L icon are not lighting.		
Thread clamping function / lifting the foot when the loose line function shortcut keys			Set used	or cancelled c	lamp funct	tion.		
Trimming Switch Set used			sed or cancelled thread trimming function.					
Slow Launch Setting		Set used or cancelled slow launch function.						
Needle Stop Position Selection			 The needle stop position is up position when <u>l</u> icon is lighting. The needle stop position is down position when <u>l</u> icon is lighting. 					
Lift Or Fill Up Needle What		When se	When sewing stop, press this key to actuate lift or fill up needle function.					
2	User P	arameter						
No. Items		Range	Default	Description				
P01	Maximum Sewing Speed (rpm)		1	100-2200	2200	Maximum speed of machine sewing		
P02	Set accel	lerated curve	(%)	10-100	80	Set the acceleration slope		
P03	Needle U	JP/ DOWN		UP/DN	DN	UP: Needle Stops at Up Position DN: Needle Stops at Down Position		
				3				

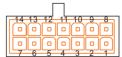
Error Code	Problem description	Measure		
		Turn off the machine, check the power supply voltage.(Or whet		
		exceed the rated voltage of use).		
E1	Over-voltage	If there are still errors, please replace the control box and call for		
		customer service.		
-		Turn off the machine, check the power supply voltage.(Or whet		
		under the rated voltage of use).		
E2	Low-voltage	If there are still errors, please replace the control box and call for		
		customer service.		
		Turn off the machine, please check if the operation panel in bac		
E3	CPU communication error	connection or is too loose. To get it right and turn on. If there are		
		errors, please replace the control box and call for customer service		
-		Turn off the machine, please check if the pedal in bad connection		
E5	Pedal connection error	too loose. To get it right and turn on. If there are still errors, ple		
		replace the control box and call for customer service.		
		Turn the machine handwheel, check if it is stuck. If it is stuck,		
		have to rule out the mechanical failure.		
		If turn normal, check if the encoder and motor in bad connection		
		too loose. If yes, please correct.		
E7	Motor locked-rotor error	If connection well, check if the power supply voltage is abnorn		
		sewing speed is too high. If yes, please adjust.		
		If there are still errors, please replace the control box and call for		
		customer service.		
		Back-Tacking electromagnet response time is too long, you have		
	Manual reverse feeding	to restart the machine.		
E8	operation more than 15 seconds	If there are still errors E-08 after restart the machine, check if t		
		manual reverse feeding switch is damaged.		
		Turn off the machine, please check if the encoder in bad connect		
E09	Positioning signal error	is too loose. To get it right and turn on. If there are still errors, p		
E11		replace the control box and call for customer service.		
		Turn off the machine, please check the related circuit is shorted		
E10	Solenoid over-current	damaged.		
		Turn off the machine, please check if the encoder in bad connect		
E14	Encoder error	is too loose. To get it right and turn on. If there are still errors, p		
		replace the control box and call for customer service.		
	Power supply module abnormal	Turn off the machine, then turn on again. If there are still errors		
E15	over-current	please replace the control box and call for customer service.		
	Machine protection switch is	Turn off the machine, check if the machine is turn over, or the		
E17	not in the correct position	Mercury Switch is shifted or damaged.		
		Turn off the machine, please check if the encoder and motor in		
E20	Motor failed to start(Electrical	connection or is too loose. To get it right and turn on. If there ar		
	angle error)	errors, please replace the control box and call for customer serv		
		Turn off the machine, check if the oil is too little. To fill it up at		
		on		
oil	Low oil	If there are still errors, please replace the control box and call for		
	1			

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P04	Start Back-Tacking Speed (rpm)	200-3200	1200	Set Start Back-Tacking Speed
P05	End Back-Tacking Speed (rpm)	200-3200	1200	Set End Back-Tacking Speed
P06	Bar-Tacking Speed (rpm)	200-3200	1200	Set Repeat Bar-Tacking Speed
P07	Soft Start Speed (rpm)	200-1500	400	Set Soft Start Speed
P08	Stitch Numbers for Soft Start	0-99	2	Soft Start Stitches Setting
P09	Automatic Constant-Stitch Sewing Speed (rpm)	200-2200	2200	Speed adjustment for automatic constant-stitch sewing
P10	Automatic End Back-Tacking Sewing	ON/OFF	ON	ON: After last seam of constant stitch sewing, it will automatic execute the End Back-Tacking sewing function. When turn on, the Stitch-Correction is invalid. OFF: Automatic End Back-Tacking will not execute after last seam, but can be done by pedal manually.
				J:JUKI Mode (Press TB switch will activate
			1	reverse solenoid when either machine is stopped
P11	Back-Tacking Mode Selection	J/B	J	or running).
111	Buck fucking mode belection	0/ <u>D</u>	5	B:BROTHER Mode (Press TB switch will
				activate reverse solenoid only when machine is
				running).
P12	Start Back-Tacking running mode selection	0-3	1	0:Could be arbitrarily stop and start 1:Automatically perform actions 2:Pause mode
P13	Ending mode of Start Back-Tacking	CON/ST P	CON	CON: Start Back-Tacking is completed automatically continued for next action. STP: After the number of stitches is completed, stop automatically.
P14	Slow start function selection	ON/OFF	OFF	· · ·
P15	Mending stitch mode	0-4	2	0:half stitch; 1:one stitch; 2:continuous half stitch; 3:continuous one stitch; 4:continuous one stitch, quick stop.
P16	Back-Tacking speed limit	0-3200	0	When the parameter is 0, the speed limit function is OFF.
P18	Start Back-Tacking compensation 1	0-200	138	Compensation for A part of Start Back-Tacking.
P19	Start Back-Tacking compensation 2	0-200	153	Compensation for B part of Start Back-Tacking.
P20	End Back-Tacking running mode selection	1-3	1	1:Automatically perform actions 2:Pause mode
P21	The position of the pedal for running	30-1000	520	
P22	The position of the pedal for the stop	30-1000	418	
P23	The position of the pedal for lifting presser foot	30-1000	270	
P24	The position of the pedal for thread trimming	30-1000	130	
P25	End Back-Tacking compensation 3	0-200	138	Compensation for C part of End Back-Tacking.
P26	End Back-Tacking compensation 4	0-200	153	Compensation for D part of End Back-Tacking.
P28	Bar-Tacking running mode selection	0-3	1	0:Could be arbitrarily stop and start 1:Automatically perform actions 2:Pause mode
P29	The rate of thread trimming stop	1-45	28	
P30	The strength of the motor torque when sewing	0-100	10	The larger the value the greater the intensity, the adjustment is too large may cause the motor

4 Port Diagram

4.1 14P function port description



- ① Trimming electomagnet: 1、8
- ② Wiper/clamp solenoid: 2、9
- ③ Loose wire electromagnet:3、10
- ④ 5V sewing machine lamp: 4、11
- ⑤ Manual backstitch: 5, 12
- 6 Backstich solenoid: 6, 13
- ⑦ Needle switch:7、14

8P function port description



- 1.Oil level sensor: 5 (+5V), 6 (DGND), 2 (signal)
- 2.Presser foot position sensor: 1 (+5V), 7 (DGND), 3 (signal)
- 3.Presser foot electromagnet: 4, 8

4.2 Port Description

