ENGLISH

H9500N

ELECTRICAL CONTROL BOX INSTRUCTION MANUAL

Version:V1.00

PREFACE

Thank you for selecting our product. The introduction provides necessary knowledge and notes for using.

Please read safety introduction carefully and understand them before using.

1. The content of the introduction will be amended with the improvement of our product, the notice is not announced.
2. If you have any doubts or comments about our product and service, please contact after-sale service.

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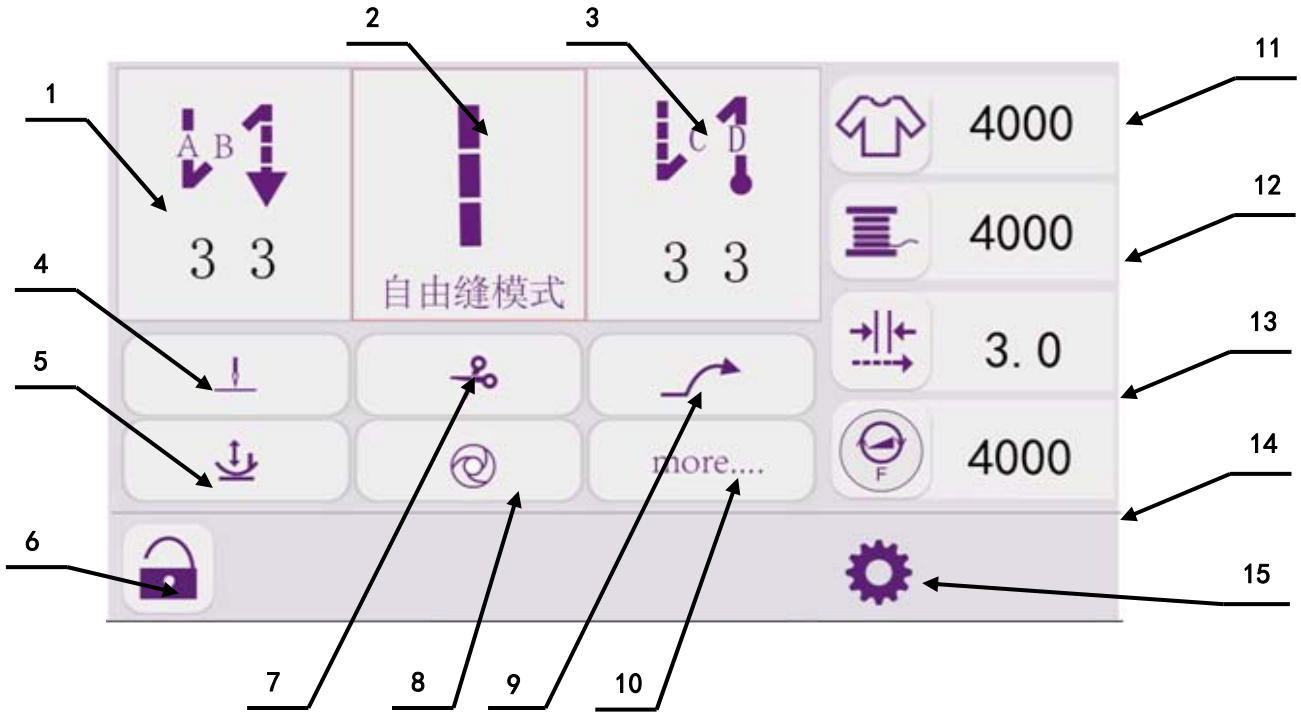
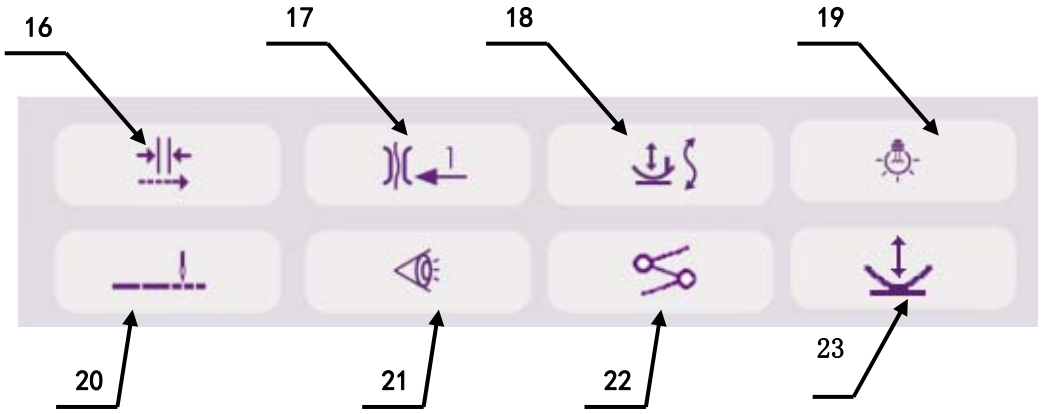
1. Peration Screen

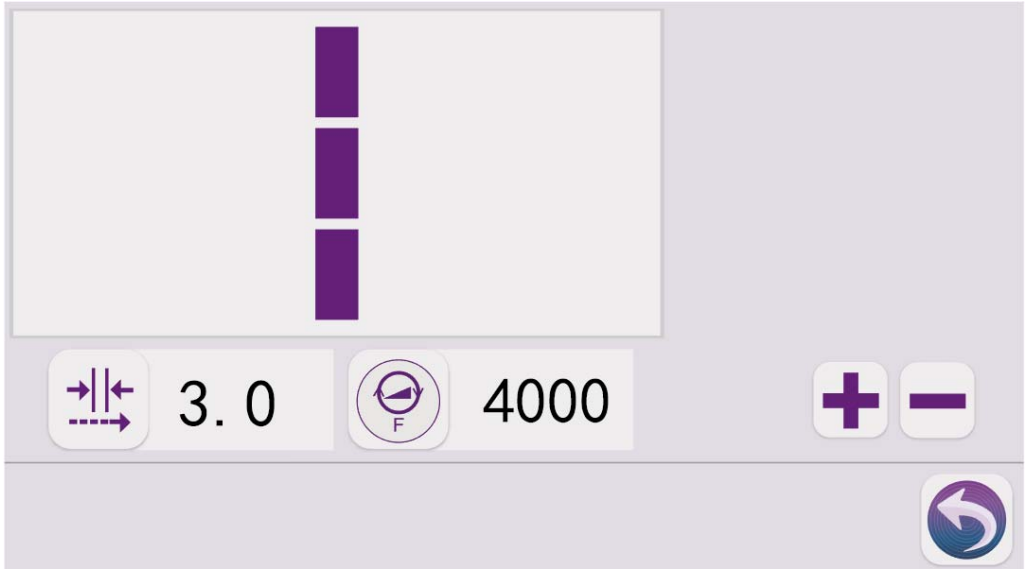
(1) Home Screen



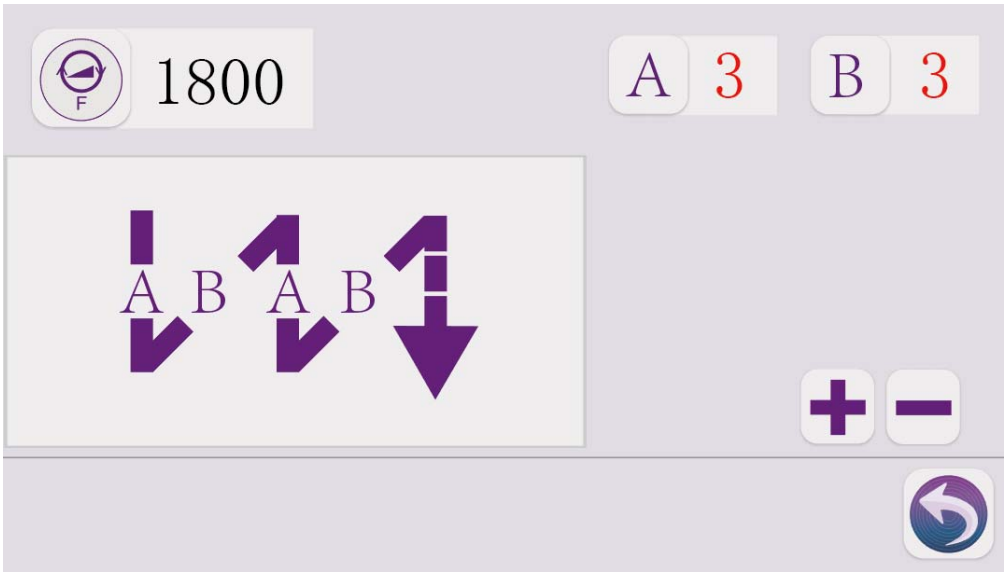
(2) Toggle Screen (click icon 10 to enter)



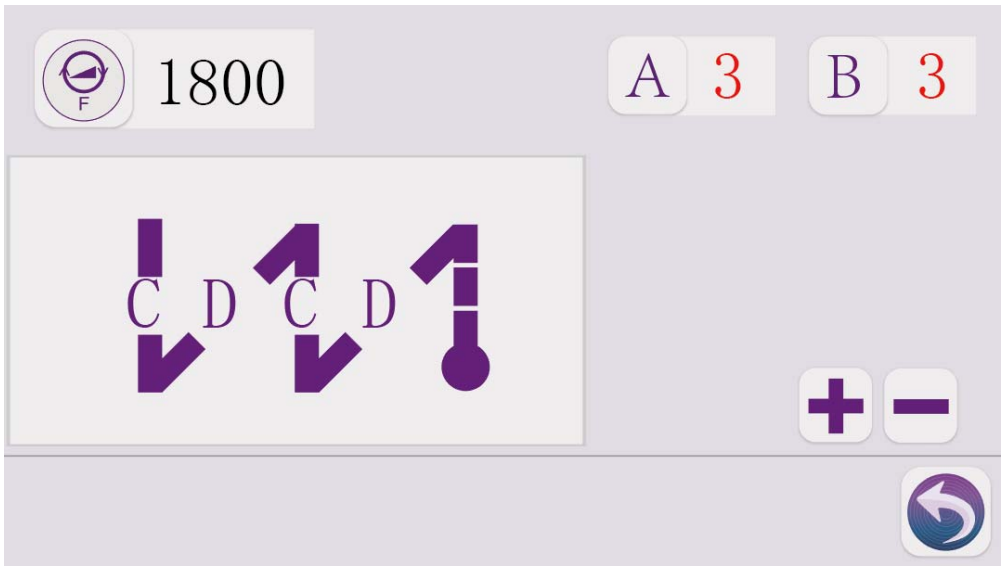
(3) Sewing set-up screen (Press icon2 long time to enter)



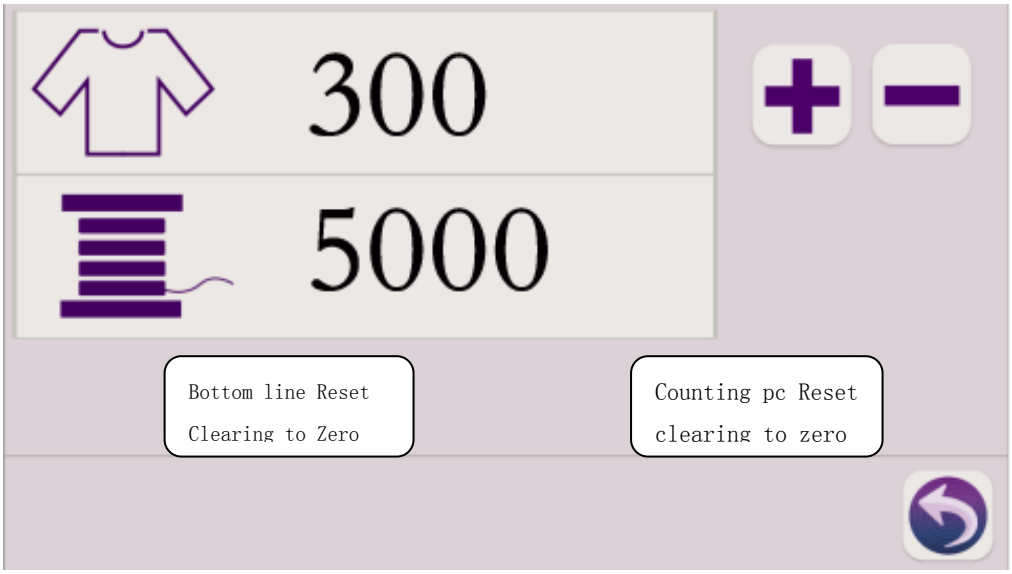
(4) Front Reverse Stitch (Press Icon 1 long time to enter)



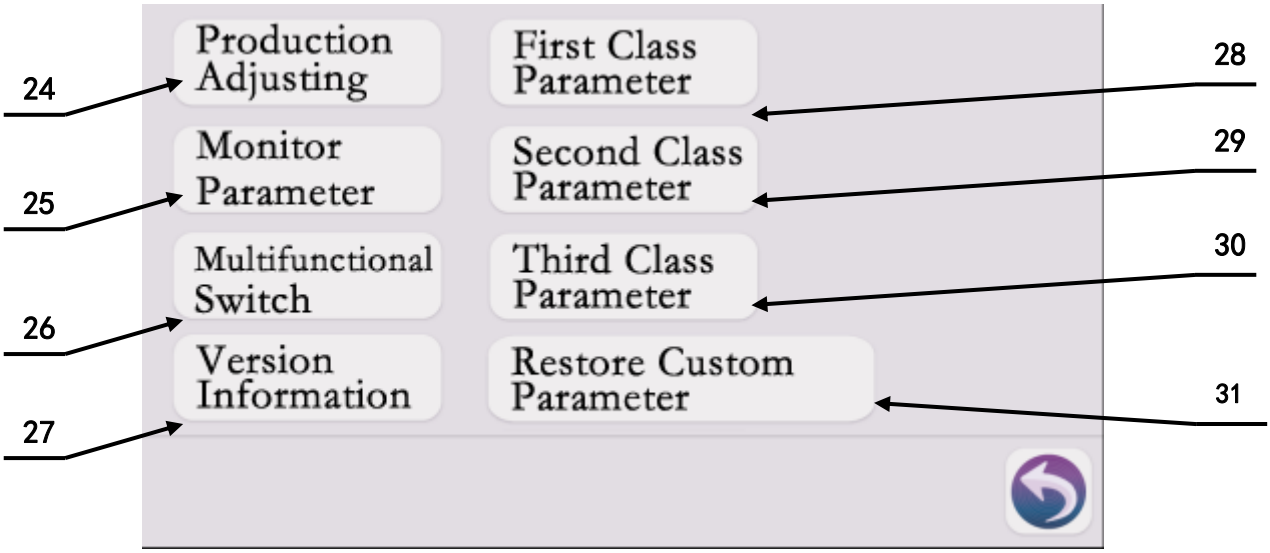
(5) Back Reverse Stich (Press icon 3 long time to enter)



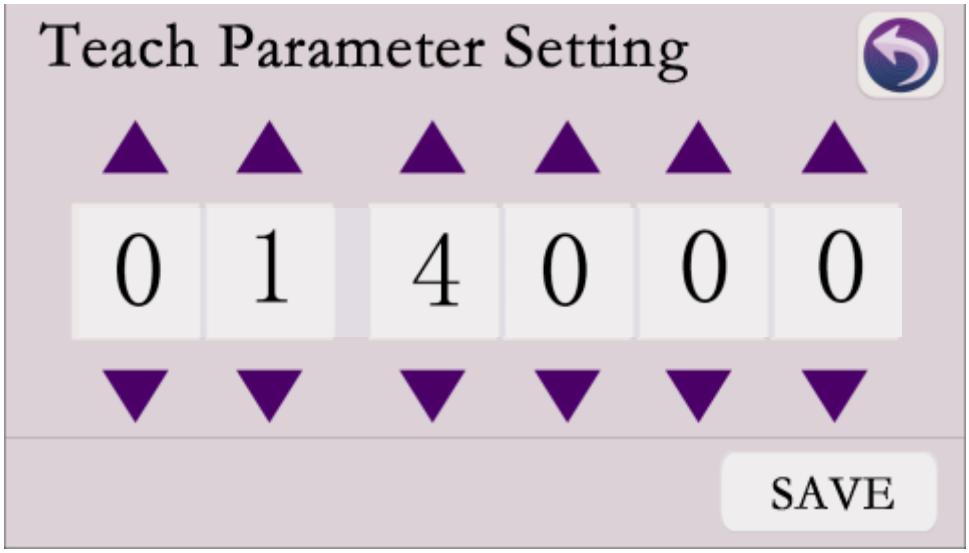
(6) Counting pcs Set-up Screen (Click icon 12 to enter)



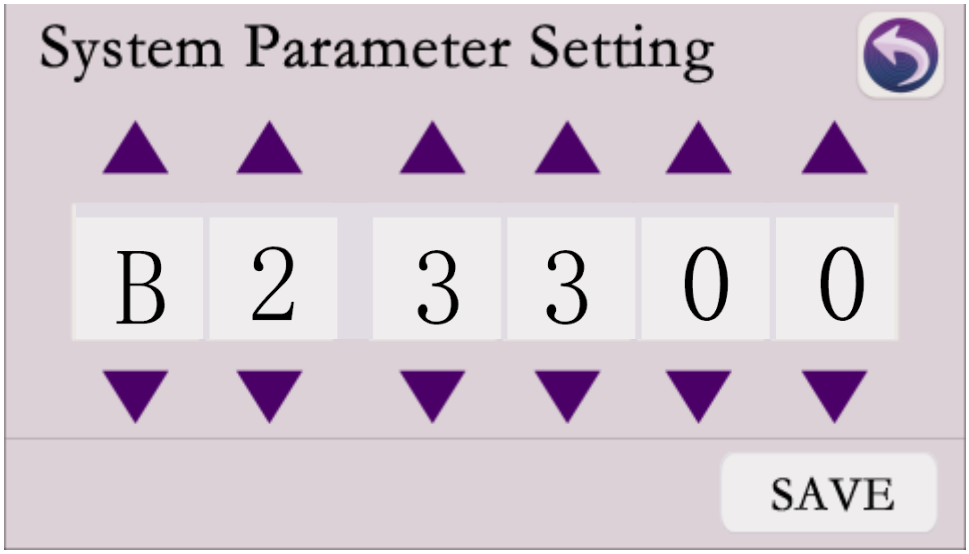
(7) Setting Option Screen (Click icon 15 to Enter)



(8) First Class Parameter Setting-up Screen (Click icon 27 to enter)



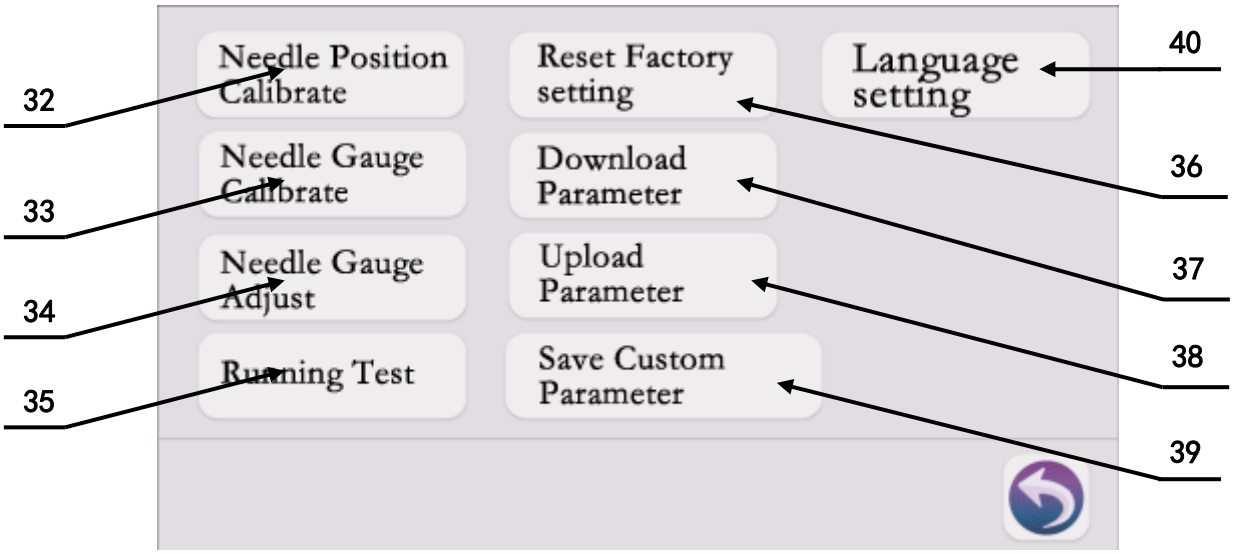
(9) Second Class Setting Screen (Press 28 to enter)



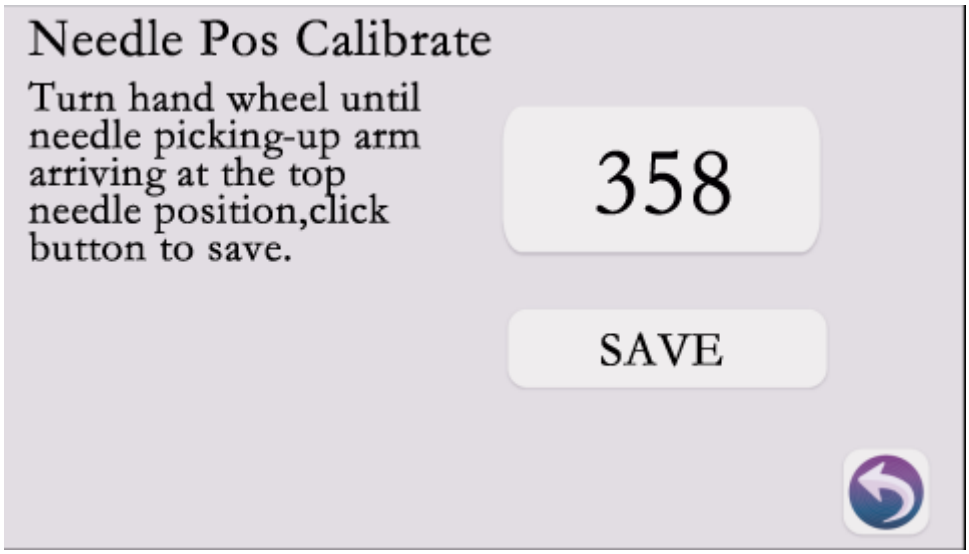
(10) Production Adjusting Setting Screen (Press Icon 31 to enter)

Password is needed to enter, For Example the screen below:

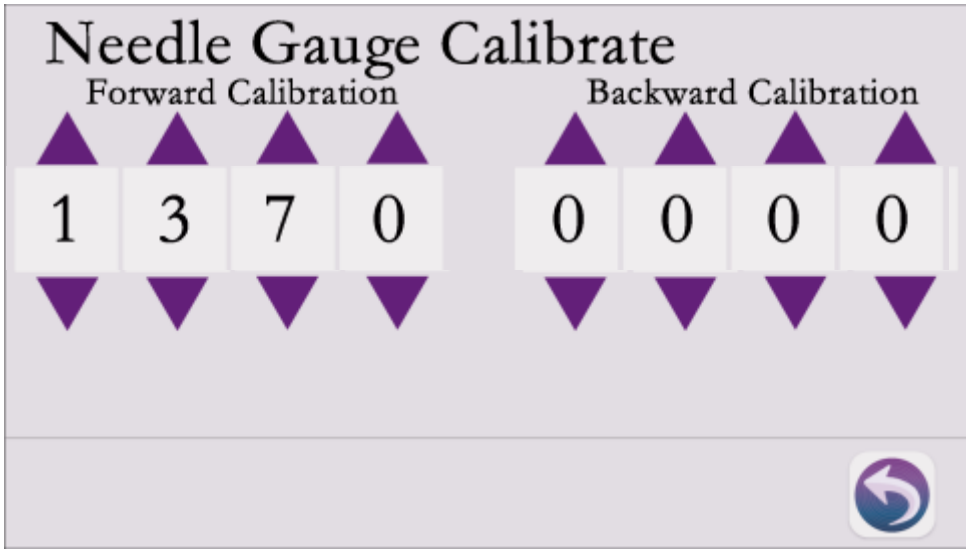
Enter the right password to enter production adjusting screen



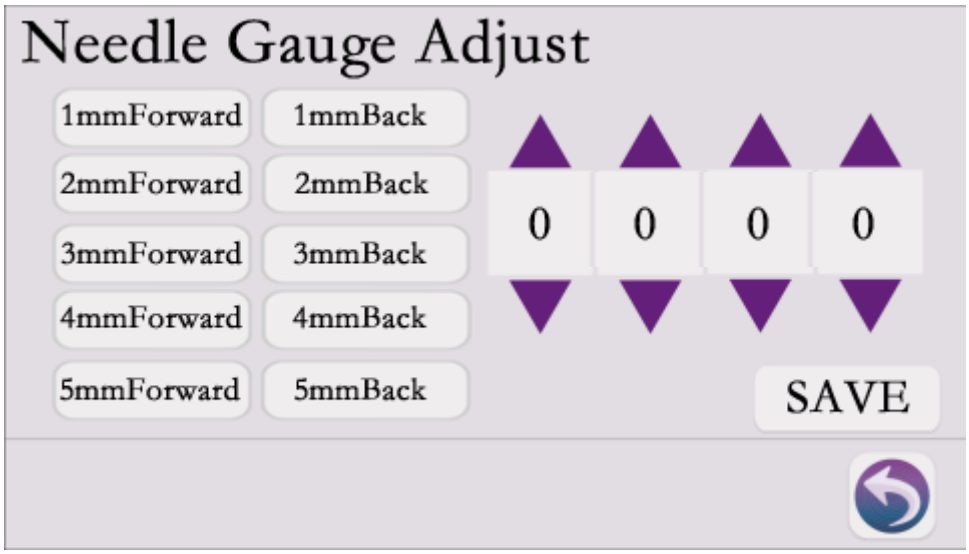
(11) Needle Position Calibrate Screen (Click icon 32 to enter)



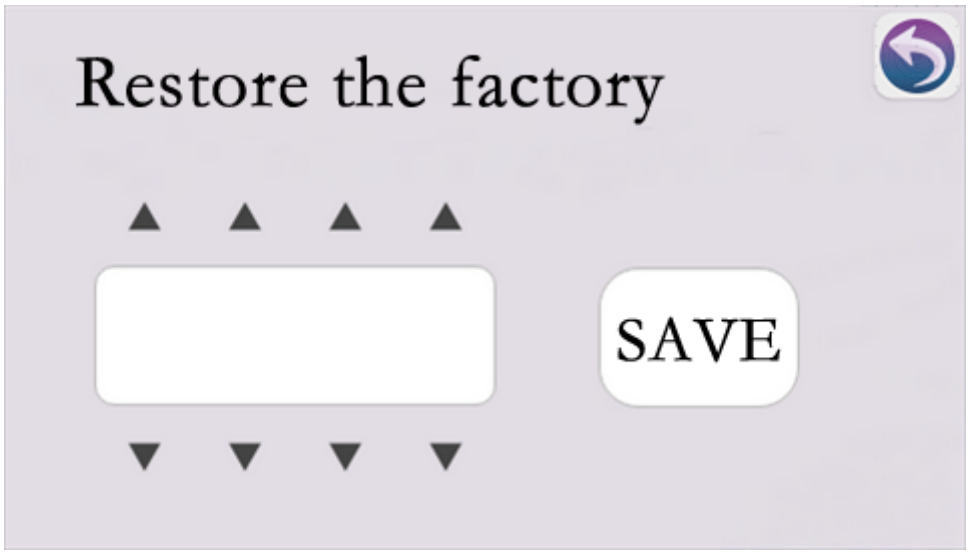
(12) Needle Gauge Calibrate (Click icon 33 to enter)



(13) Needle Gauge Adjust (Needle gauge Compensating) Screen (Click icon 34 to enter)



(14) restore the factory interface (Press icon 36 to enter)



2. Icon Description

1.  Front reinforce-sewing mode selection

2.  Sewing mode: free sewing, multi-segment sewing, W sewing, four-segment sewing, long press to enter the sewing setting interface (3)

3.  Back reinforce-sewing mode selection

4.  Up/down needle stop position switching

5.  Automatic presser foot mode switching

6.  Screen lock/release

7.  Trimming on/off

8.  Automatic sewing trigger ON/OFF (only for multi-segment, four-segment, W-sewing

9.  Slow starting On/Off

10. 

More shortcuts to enter, click to enter the quick switch interface (2)

11. 

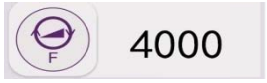
Counting, long press to enter setting interface

12. 

Line counting switch, long press to enter setting interface

13. 

Needle gauge, click on the number field to enter the setting interface

14. 

Sewing speed, click on the number area to enter the setting interface

15.  Set button, click to enter the setting selection interface

16.  Presser foot function ON/OFF

17.  Stitch adjustment lock on/off

18.  Programming sewing on/off, long press to enter the setting interface

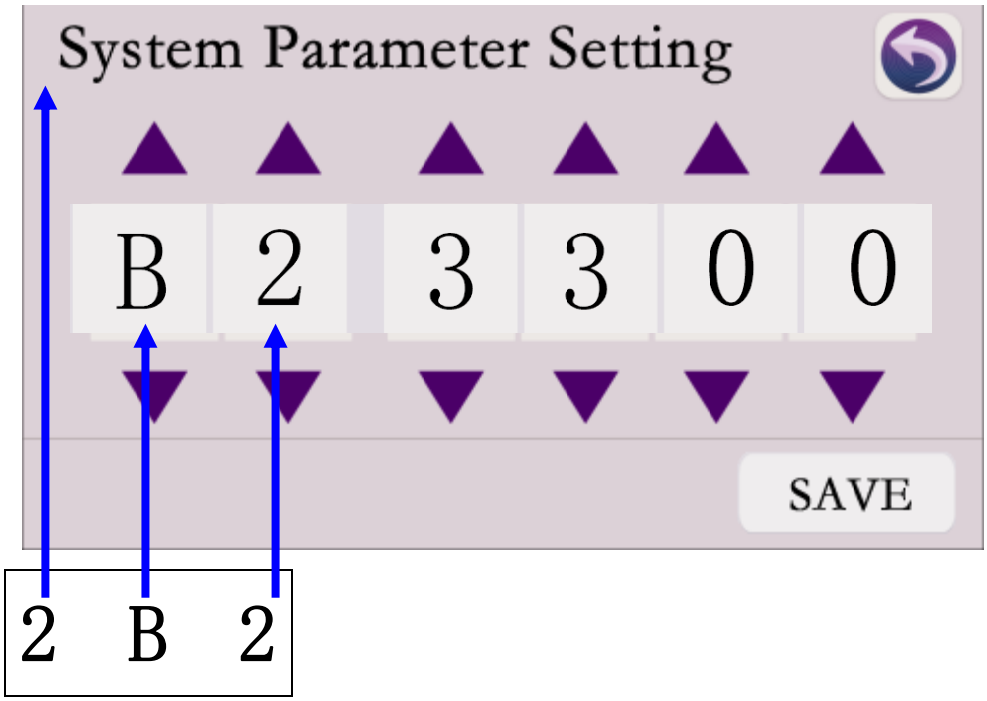
19. 
Needle clamp tension adjustment ON/OFF

20.  Presser foot release adjustment on/off

21.  LED brightness adjustment

22.  Closed stitch mode switch (end-closed stitching , start-closed stitching, start and endclosed stitching)

23. Parameter Description: parameter 2B2 is expressed as secondary parameter B2, entering the password is required for entering the second and third level parameters.

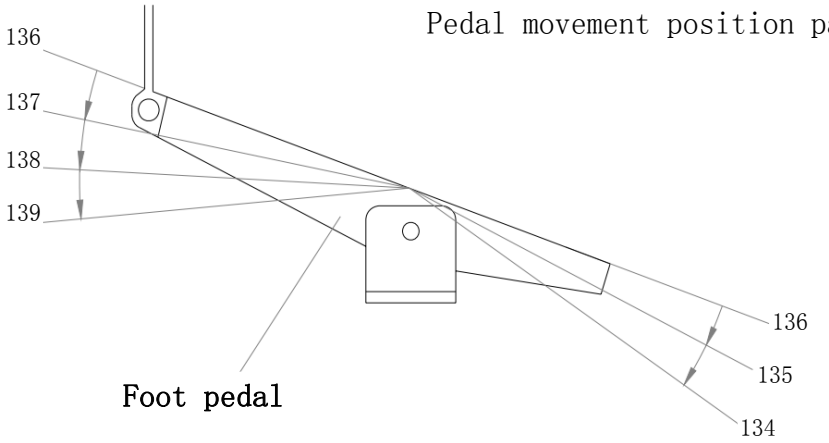


3. Instructions

(1) Foot pedal sensitivity adjustment

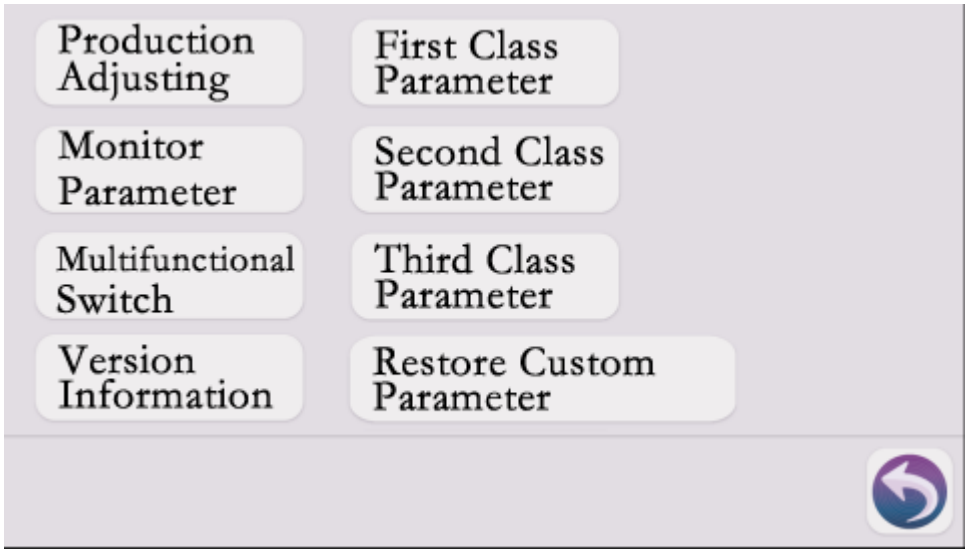
Foot pedal action begins with initial position ① (parameter 136), slowly step forward to ② (parameter 137) Start sewing at low speed, Continue stepping on to ③ (parameter 138) then start accelerate,Step deeper to ④ (parameter 139) to reach the maximum speed. The sewing speed between the ②③ segments is maintained, and the stepless speed regulation process between the ③④ segments;

1. When the foot pedal starts from the initial position ① (parameter No. 136), the presser foot lifts automatically when stepping slowly to ⑤ (parameter No. 135); 2. When the foot pedal comes from the initial position ① (parameter 136) Initially, the thread trimming operation will be completed automatically when stepping slowly to ⑥ (parameter #134). 3, each parameter value needs to be guaranteed (parameter No. 134)



(2) Restore factory settings

Enter the Setting Option Screen

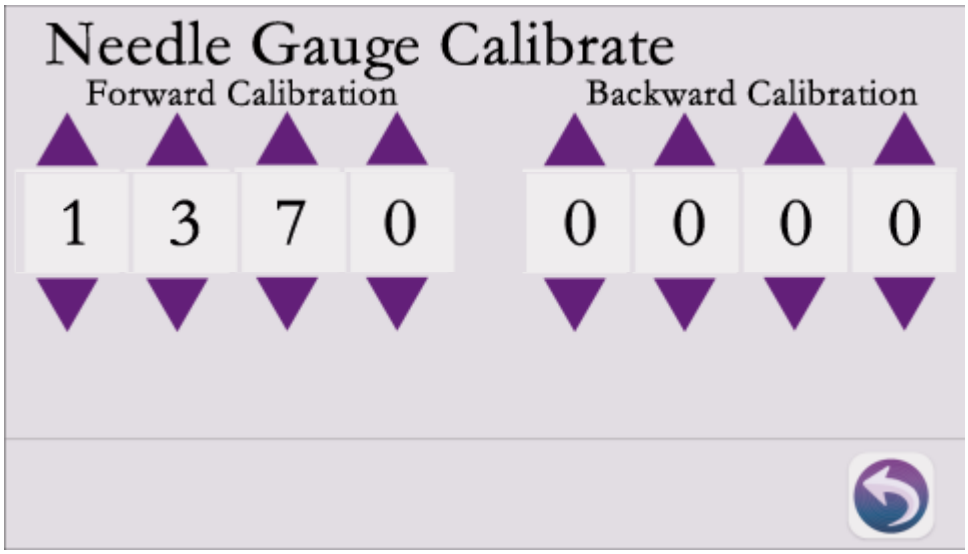


Press and hold the he bottom (restore custom parameters) for a long time, until the following text box appears, no operation is allowed, and the system automatically jumps to the main interface after it is automatically completed.

The parameters are being transferred .Please wait , When transmission completed ,interface will jump automatically.

(3) Needle gauge calibration

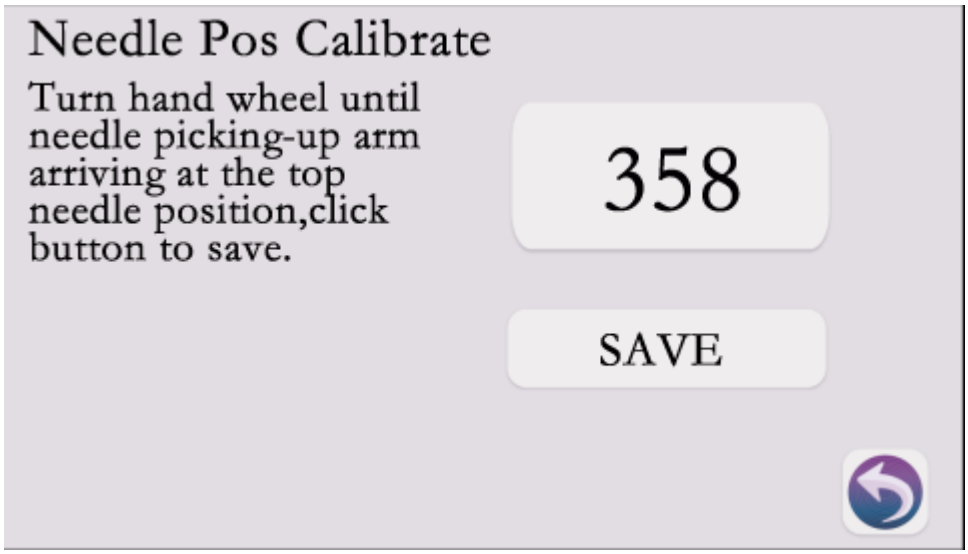
Enter the needle gauge calibration interface(**Article 12 of the first item**);



I. Enter the needle gauge calibration interface(Article 12 of the first item)
II. The machine does not thread, place an A4 paper under the presser foot;
III. Step down the foot control device to make the machine run at a speed of over 3,000 rpm;
IV. Adjustment parameters:
Paper moves forward, and adjusts backward calibration parameters;
Adjust the forward, and adjusts forward calibration parameters;
Until A4 paper does not move forward or back
V. When after adjustment, return to the main interface.

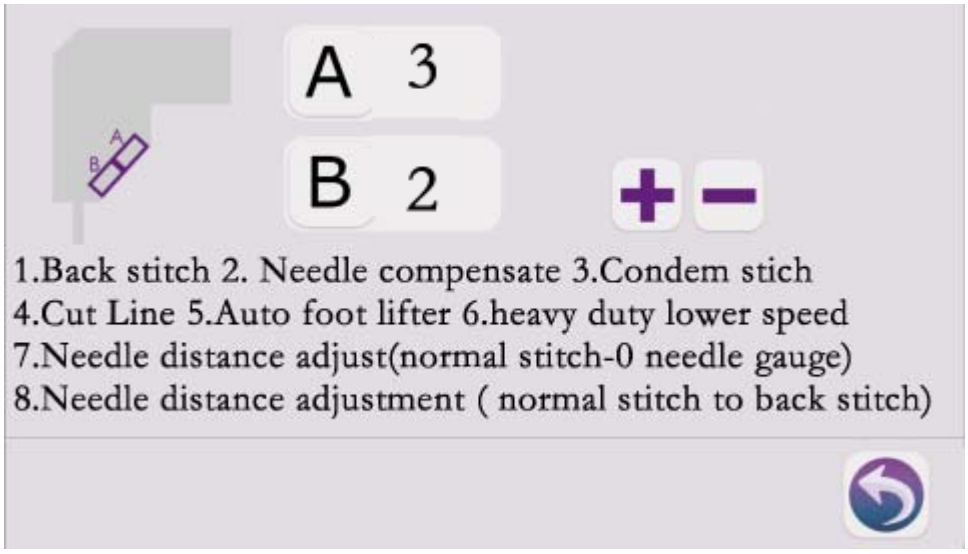
(4) The needle position calibration

Click to enter the needle calibration interface (Click icon 32 to enter), press the interface prompt operation, and click save to make the data become 0.



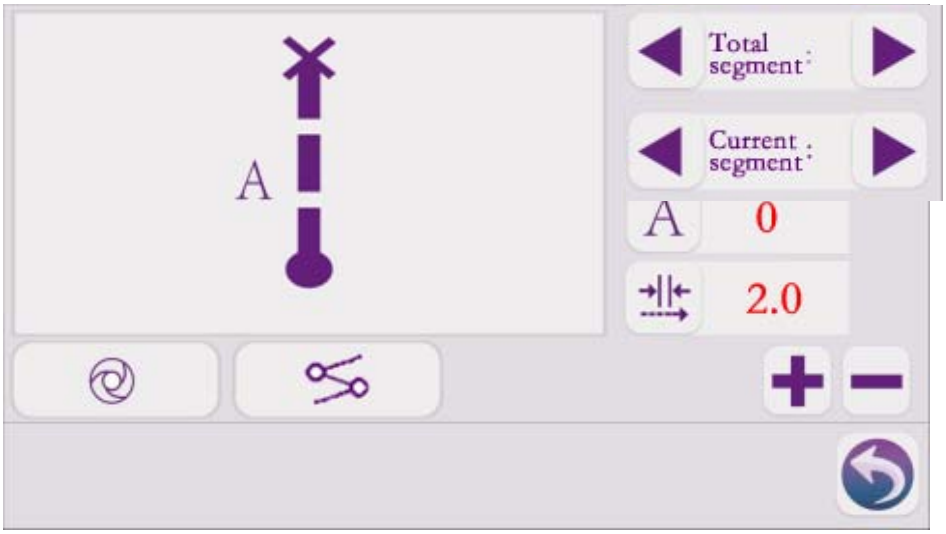
(5) Multi-function switch adjustment

Enter the setup selection interface and enter the shortcut function selection according to the icon 25 in item seventh of the first item.。



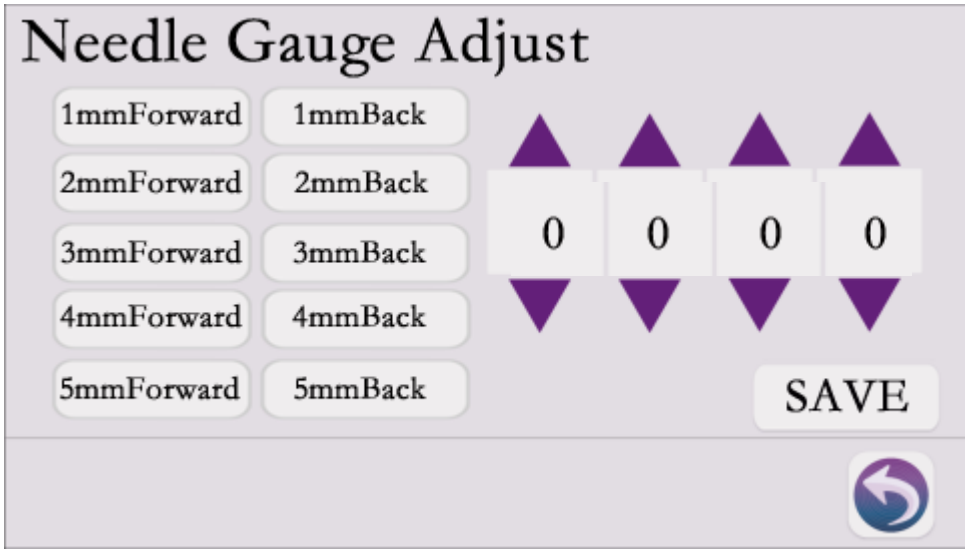
(6) Simple programming seaming Settings

Enter the setting selection interface, long press the icon 22 in item 2 of the first item, and enter the programming slot setting (W slot is valid).



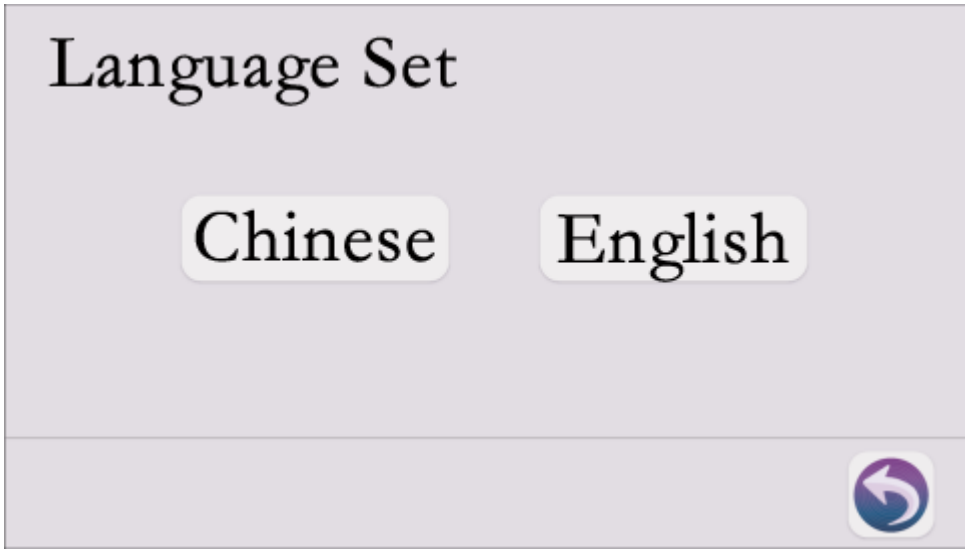
(7) Stitch length compensation（※Confirm the mechanical position and feed synchronization are correct, and the needle pitch calibration has been adjusted as required）

Select the stitch length that needs to be adjusted in this interface, and adjust it directly in the following Numbers. After the adjustment is OK, confirm to press save.



(8)Language setting

Enter the Language setting interface((Click icon 40 to enter)). Choice language. Back to the Home Screen.



4.Parameter table

Classification	Object	Default	Range	Comment
Speed	1 0 0	200	100~800	Start sewing speed
	1 0 1	4000	200~5000	Maximum speed of free sewing (global maximum speed)
	1 0 2	3000	200~5000	Maximum speed of fixed-length sewing
	1 0 3	3000	200~5000	Maximum speed limit of manual backstitch
	1 0 4	200	100~800	Needle filling speed
	1 0 5	250	100~500	Thread trimming speed
	1 0 6	0	0 / 1	Soft start mode 0: Slow start only after trimming 1: Slow start after trimming and intermediate stop
	1 0 7	2	1~9	Soft start stitch count
	1 0 8	200	100~800	Soft start speed
Reinforcing sewing parameters	1 1 0	1800	200~2200	Front-end back tacking speed
	1 1 1	1800	200~2200	Rear-end back tacking speed
	1 1 2	1800	200~2200	Continuous back tacking speed
	1 1 3	24	1~70	Stitch length in condensed sewing (0-50 represents 0 - positive 5mm, 70-120 represents 0 - negative 5mm)
	1 1 4	20	1~70	Automatic close stitch number before thread trimming
	1 1 5	24	1~70	Start automatic close stitch number
	1 1 6	0	0~1	Pattern sewing switch
	1 1 8	2	1~8	Total number of sections in pattern sewing
	1 1 B	0	0~2	Disconnection detection mode option (0. off; 1. detection with delay of certain stitches after trimming; 2. start detection when speed exceeds the threshold)
	1 1 C	0	0~9999	Delayed stitch number in disconnection detection mode 1
	1 1 D	0	0~9999	Speed threshold in disconnection detection mode 2
	1 1 E	0	0~9999	Disconnection detection sensitivity (alarm if no signal is received after continuous X stitches)
Reinforcing sewing mode	1 2 0	0	0 / 1 / 2 / 3	Front-end back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Stop arbitrarily by pedal control. 2: Action controlled by [CT] time after needle stops at upper fixed position 3: Action controlled by [CT] time after needle stops at lower fixed position

Reinforcing sewing mode	1 2 1	0	0 / 1 / 2	Operation mode option after front-end back tacking is completed: 0: Continue sewing after front-end back tacking 1: Stop automatically after front-end back tacking 2: Automatic trimming after front-end back tacking
	1 2 2	0	0/1	Operation mode option after fixed-length sewing is completed: 0: Rear-end back tacking 1: Stop and standby (compensation allowed)
	1 2 3	0	0/1/2/3	Rear-end back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Invalid 2: Action controlled by [CT] time after needle stops at upper fixed position 3: Action controlled by [CT] time after needle stops at lower fixed position
	1 2 4	0	0/1 / 2 / 3	W back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Stop arbitrarily by pedal control. 2: Action controlled by [CT] time after needle stops at upper fixed position 3: Action controlled by [CT] time after needle stops at lower fixed position
	1 2 E	0	0～99	Idle stop needle count state between fixed stitch sections: 0 counting allowed 1 stop counting
	1 2 F	1800	200~2200	Speed in condensed sewing
Pedal	1 3 0	2	0 / 1 / 2 / 3	Pedal curve mode: 0: Automatic linear slope (automatically calculated according to the maximum speed) 1: Two-section slope 2: Power curve 3: S-shaped curve
	1 3 1	3000	200~4000	Two-section slope: mid-section speed RPM (turning point speed of two-section slope)
	1 3 2	800	0~1024	Two-section slope: mid-section pedal analog (between parameter 3.8 and 3.9)
	1 3 3	1	1 / 2	Power curve: 1: Squared; 2: Open;
	1 3 4	90	0~1024	Pedal thread trimming position
	1 3 5	300	0~1024	Pedal presser foot lift position (greater than the value of previous parameter in order)
	1 3 6	460	0~1024	Pedal back to center position (greater than the value of previous parameter in order)
	1 3 7	480	0~1024	Pedal stepping forward position (greater than the value of previous parameter in order)

Pedal	1 3 8	580	0~1024	Pedal low speed operating position (upper limit) (greater than the value of previous parameter in order)
	1 3 9	962	0~1024	Pedal simulation maximum value (greater than the value of previous parameter in order)
	1 3 A	100	0~800	Pedal simulation maximum value
	1 3 B	0	0 / 1	Pedal back to center immediately thread trimming option: 0: Off 1: On
	1 3 C	1	0 / 1	Presser foot position presser foot lift function option: 0: No lift 1: Lift
	1 3 D	1	0 / 1	Thread trimming position presser foot lift function option: 0: No lift 1: Lift
	1 3 E	1	1~800	Presser foot lift delay time after thread trimming
Custom setting 1	1 4 0	1	0 / 1	Automatic run to up needle position option after power on: 0: Run to position 1: Not run to position
	1 4 1	1	0 / 1	Automatic back tacking function option: (not allowed for head without automatic back tacking function recommended) 0: Back tacking not allowed 1: Back tacking allowed
	1 4 2	0	0 / 1	Function mode option in hand back tacking 0: Juki mode. Action during sewingn or upon intermediate stop. 1: Brother mode. Action only during sewing, compensate upon intermediate stop.
	1 4 6	100	1~800	Half stitch compensation button command time
	1 4 7	150	1~800	One stitch compensation button command time
	1 4 8	0	0 / 1 / 2	Button compensation mode: 0: press time control; 1: half stitch compensation; 2: one stitch compensation
	1 4 9	0	0~10	Presser foot slow down function switch
	1 4 A	0	0~10	Pedal acceleration curve filter coefficient
	1 4 B	0	1-200	Slow release foot level
	1 4 C	1	1~9999	Time of chopping on for presser foot slow down (ms)
	1 4 D	4	0~9999	Time of chopping off for presser foot slow down (ms)
	1 4 E	2	1/2	Compensation function: 1. stitch compensation allowed after thread trimming 0. stitch compensation not allowed after thread trimming

Counting mode	1 5 0	1	1～100	Stitch count ratio setting
	1 5 1	1	1～9999	Stitch count upper limit setting
	1 5 2	0	0～4	Stitch counter mode option: 0: No counting 1: Count up according to stitch count, and recount automatically after the set value is count 2: Count down according to stitch count, and recount automatically after the set value is count 3: Count up according to stitch count, and motor stops automatically after the set value is count, restart by S4 [152.INI] = CRS setting or A button on the panel required. 4: Count down according to stitch count, and motor stops automatically after the set value
	1 5 3	1	1～100	Trimming counter function ratio setting
	1 5 4	1	1～9999	Trimming count setting
	1 5 5	0	0～4	Trimming counter mode option: 0: No counting 1: Count up according to Trimming count, and recount automatically after the set value is count 2: Count down according to Trimming count, and recount automatically after the set value is count 3: Count up according to Trimming count, and motor stops automatically after the set value is count, restart by S4 [152.INI] = CRS setting or A button on the panel required. 4: Count down according to Trimming count, and motor stops automatically after the set value
	1 5 8	0	0/1	Counting switch (stitch count and trimming count) (0 adjustable, 1 not adjustable)
	1 5 D	3100	0~4095	Stroke switch analog minimum
	1 5 E	4000	0~4095	Stroke switch analog maximum
	1 5 F	1	0~2	Stroke switch (0. off; 1. forward; 2. positive/negative)
Stop mode	2 2 0	360	60～360	Trimming pullback function (stop position after trimming)
	2 2 1	0	0～240	Reverse angle before sewing (increasing capacity for thick material)
	2 2 2	360	200～360	Upper needle position adjustment in intermediate stop
Head related parameters	2 4 2	0	0～359	Upper needle position adjustment angle (offset relative to the positin of upper needle position sensor)
	2 4 3	175	0～359	Lower needle position mechanical angle
	2 4 4	200	0~800	Presser foot release protection time (from presser foot release to needle start action)

5.Monitoring parameters

Monitoring parameters	Comment
10	Stitch count
11	Trimming count
12	Real machine speed
13	Hall state
14	Sector number
15	Motor electrical angle
16	Optical pulse count per revolution
20	Busbar voltage
21	Machine speed
22	opposite current
23	Initial angle
24	Mechanical angle
25	Sampling value of pedal voltage
26	Actual gear ratio of head
27	Motor accumulated running hours (Hour)
28	High order part of DSP software version
29	Low order part of DSP software version
2B	Analog input 2 sampling value (head analog button)
2C	Highest position: reverse sewing button; Second position: safety switch (Turnover) Third position: needle filling (The one in 2 Halls) Fourth position: over oil
2D	Highest position: low oil; Second position: broken line Third position: sensor Fourth position: head analog button

6.Table of error codes/cause /remedy

Error code	Code meaning	Solution
Err-01	Hardware overcurrent	Turn off the system power and re connect the power after 30 seconds. If the controller is still not working properly, please replace the controller and notify the manufacturer.
Err-02	Power off reminding	Please wait 30 seconds again to reopen the power switch
Err-03	Undervoltage system	Disconnect the controller power supply and check if the input voltage is low (less than 176V). If the supply voltage is low, restart the controller after the voltage is back to normal. If the voltage is restored to normal, the startup controller is still not working properly. Please replace the controller and notify the
Err-04	Overvoltage during shutdown	Disconnect the controller power supply and check if the input voltage is high (above 264V). If the supply voltage is too high, restart the controller after the voltage is back to normal. If the voltage is restored to normal, the startup controller is still not working properly. Please replace the controller and notify the manufacturer.
Err-05	Overvoltage during operation	Disconnect the controller power supply and check if the input voltage is high (above 264V). If the supply voltage is too high, restart the controller after the voltage is back to normal. If the voltage is restored to normal, the startup controller is still not working properly. Please replace the controller and notify the manufacturer.
Err-06	Electromagnet circuit failure	Turn off the system power, check whether the solenoid connection is correct, whether there are loose, damaged and so on. If it is correct, restart the system. If it is still unable to work, replace the controller and notify the manufacturer.
Err-07	Current detection loop failure	Turn off the power of the system and re connect the power after 30 seconds to see if it works properly. Retry several times. If the fault occurs frequently, replace the controller and notify the manufacturer.
Err-8	Motor stalling	1. Check whether the motor power cord is off 2. Check whether the machine head is stuck 3. Check whether motor code wheel cord is loose 4.Check whether the needle up position is correct (at the case of thread trimming movement) If the malfunction have not been solved yet ,please contact the after-sale service.
Err-10	HMI communication failure	Check whether the connection between control panel and controller is falling off, loosening or breaking, and restore it to normal and restart the system. If it is still not working properly, please replace the controller and notify the manufacturer.

Err-11	Signal failure of head needle stop	Please check whether the motor electrical connection is normal
Err-12	Motor initial angle detection failure	Please try again 2-3 times after power failure. If the fault is still reported, replace the controller and notify the manufacturer.
Err-13	Motor hall failure	Turn off the system power, check whether the motor sensor connector is loose or fall off, restore it to normal and restart the system. If it is still not working properly, please replace the controller and notify the manufacturer.
Err-14	DSP EEPROM read/write failure	Turn off the system power and restart the system after 30 seconds. If it is still not working properly, please replace the controller and notify the manufacturer.
Err-15	Motor overspeed protection	
Err-16	Motor reversal rotation	
Err-17	DSP watchdog timer failure	
Err-18	Motor overload	
Err-19	Safety switch (Overturn table)	
Err-20	Oil refilling time protection	
Err-21	Location out-of-tolerance (Similar to stalling)	
Err-22	Stepper motor overcurrent	
Err-23	Steper current sampling fault	
Err-24	Stepper origin finding fault	1.Please check whether the stepper motor electrical connection is normal 2.Check whether the mechanical parts connected to the stepper motor are normal.
Err-25	Stepper position failure to reach fault	
Err-26	Oil shortage alarm (Unused temporarily)	
Err-27	Over-oil alarm (Unused temporarily)	
Err-28	Wire break detection alarm	
Err-29	Oil alarm reminder	
Err-30	Oil alarm fault	