
1900/1906 Panel Instructions

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1 Summary description

1.1 Overview

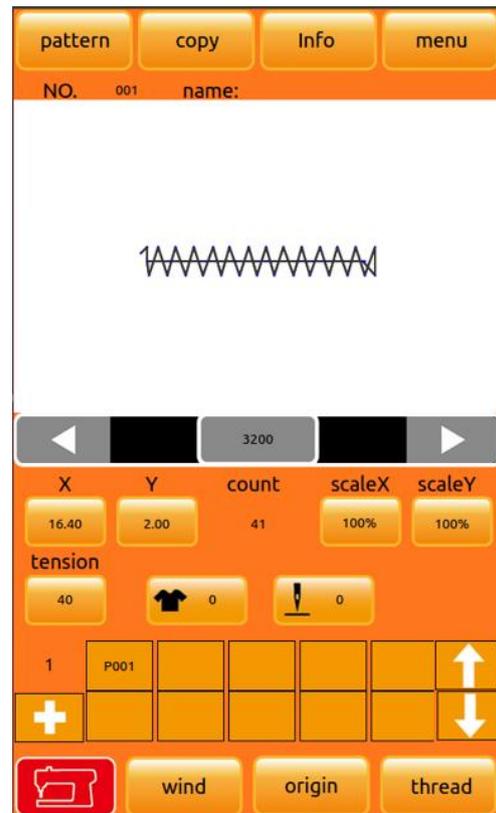
The template industrial sewing machine computer control system, the spindle motor is driven by the world's advanced AC servo control technology, which has the characteristics of large torque, high efficiency, stable speed and low noise. The diversified design of the operation panel can meet the supporting requirements of different customers; the system adopts the German structure design, which is convenient and quick to install and maintain. The system control software can be upgraded through a U disk, which is convenient for users to continuously improve product performance.

1.2 Function and index parameters

Controller model	Automatic template machine
Sewing speed	1900: 3500rpm (When the pitch is less than 3mm) 1903: 2700 rpm
Stitch length	0.1~12.7mm (Minimum resolution 0.05mm)
Presser foot feed	Intermittent feeding (Pulse motor two-axis drive mode)
Memory of pattern data	U Disk
Pause function	The sewing machine can be stopped during sewing
Sewing speed limit	400~3500rpm (100rpm unit)
Pattern selection function	Pattern number selection method
Stitch counter	Counting up/down counting method (0~65000)
Sewing counter	Counting up/down counting method (0~9999)
Setting of the second origin	The second origin can be set by moving the needle position after sewing to any position within the sewing range.
Sewing machine motor	Servo motor
voltage	AC220-240V

1.3 Standardization

The interface and function buttons adopt industry-recognized standards, which are versatile and easier for users to learn and use.



1.4 Operation method

The touch screen operation panel of this system adopts the industry's advanced touch operation technology. The friendly interface and convenient operation bring innovative changes to the daily use of users. The user can touch the screen with a finger or other objects to complete the corresponding operation. Users should avoid touching the screen with sharp objects during use, so as not to cause permanent damage to the touch screen. Please refer to the description in the following chapters for the specific operation method.



Users should avoid touching the screen with sharp objects during use, so as not to cause permanent damage to the touch screen.

2 Instructions

2.1 General keys

The keys for general operations on each interface of the system are as follows:

Serial number	Icon	Features
1		Pattern management key → Pattern selection and pattern management
3		Information button → View version information
4		Single-step sewing test key → Test pattern single-step sewing
5		Speed decrease button → speed decrease by 100 rpm
6		Speed increase button → speed increase by 100 rpm
7		Speed key → input speed value
8		Intermediate presser foot height key → Set the height of the intermediate presser foot
9		Production count key → Production number counter
10		Bobbin thread counting key → Stitch counter
11		Threading button → Threading
12		Pattern confirmation key → Press the pattern confirmation key to enter the state of preparing to sew
13		Menu key → enter the menu interface

2.2 Basic operation

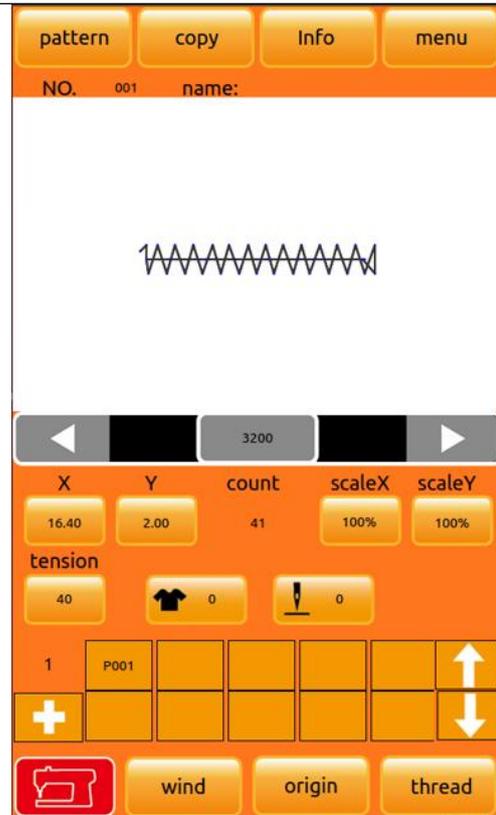
① Turn on the power switch

After turning on the power, the data input interface is displayed.

② Select the pattern No. you want to sew.

The selected pattern No. will be displayed in the current interface. After pressing the pattern selection key , enter the submenu to select pattern 001.

For the operation of pattern selection, please refer to section [2.8 Pattern Selection].

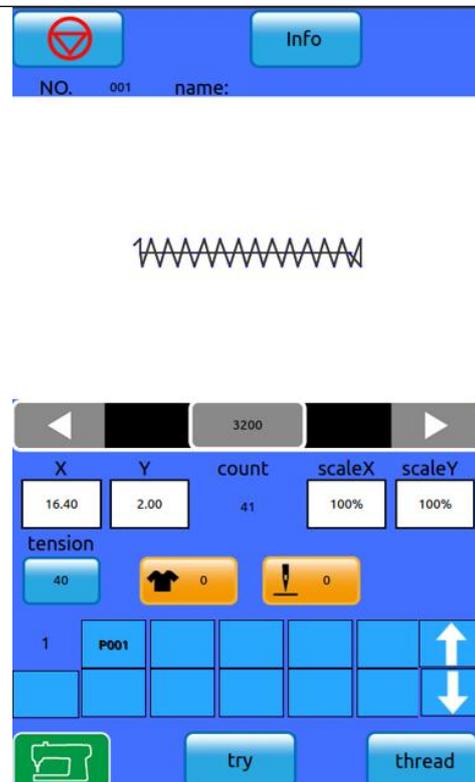


③ Set it to a state where it can be sewn

After pressing the ready key , the background color of the ready key turns to green and becomes a state where you can sew, as shown in the figure on the right.

④ Start sewing

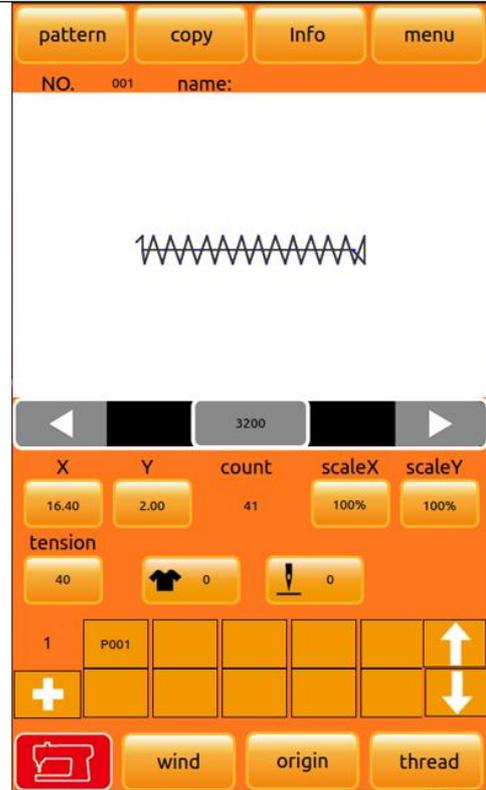
Place the sewing product on the presser foot, step on the pedal to lower the press frame, and then depress the start pedal to start the sewing machine and start sewing.



2.3 Ordinary pattern operation

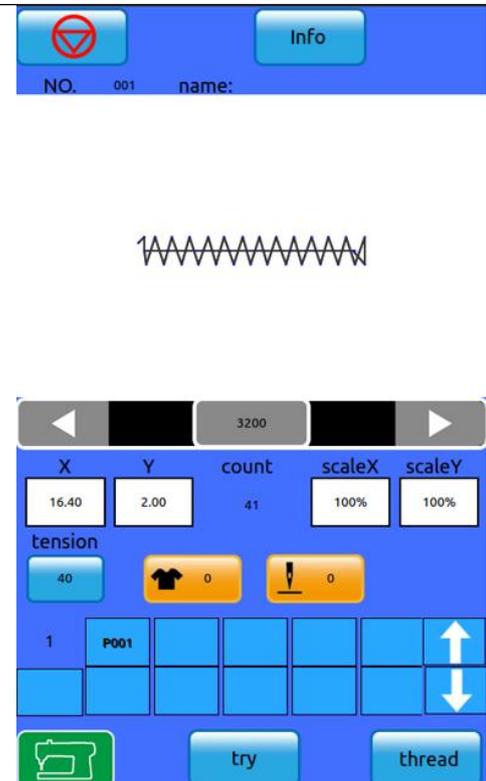
(1) Sewing data input interface

The data input interface is shown on the right. For detailed function description, please refer to the function key description table.

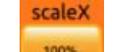
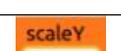
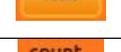


(2) Sewing interface

Press down  enter the sewing interface as shown on the right. For detailed function description, please refer to the function key description table.



Function Description:

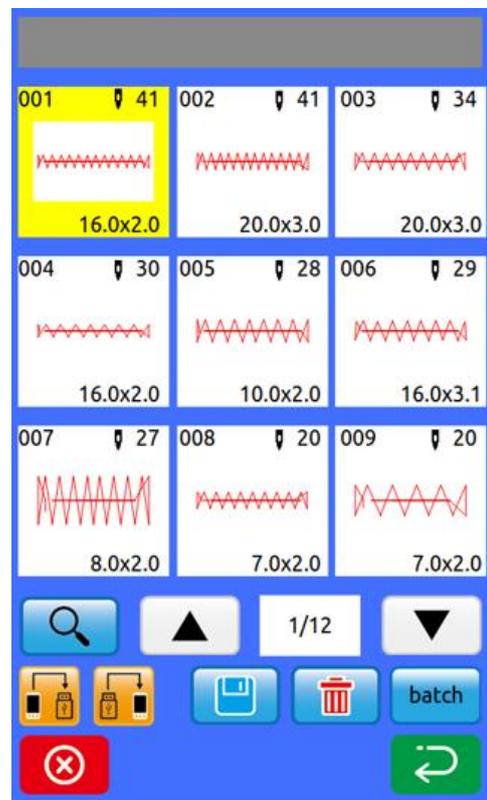
Icon	Features
	Pattern selection and pattern management
	View version information
	Pattern number
	Pattern name
	Speed reduced by 100 rpm
	Speed increase by 100 rpm
	Enter speed value
	Pattern X size
	Pattern Y size
	Pattern X zoom magnification
	Pattern Y zoom magnification
	Total number of stitches
	Pattern tension value
	Set the height of the presser foot
	Piece counter
	Stitch counter
	Thread
	Enter the state of preparing to sew
	Enter the menu interface

Function Description:

Icon	Features
	Winding button
	Exit sewing interface button
	Emergency stop

2.4 Pattern registration

Push the  button enter the pattern management interface (as shown on the right), in the pattern management interface, you can register the currently selected pattern as another number.



Up to 999 common patterns can be registered.

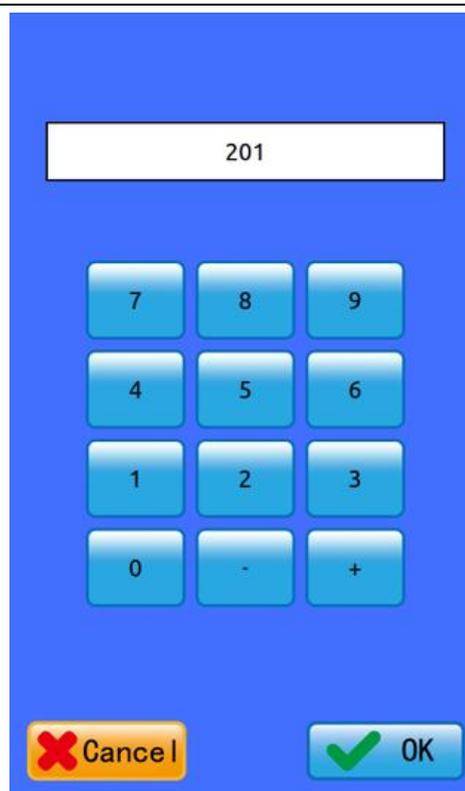
Press the  button to enter the pattern registration interface (as shown on the right):

① Enter the pattern number

You can select the pattern number you want to enter through the number keys. The pattern number range must be 1~999. If you enter other numbers, it will show that it is out of the number range.

② Register a new pattern

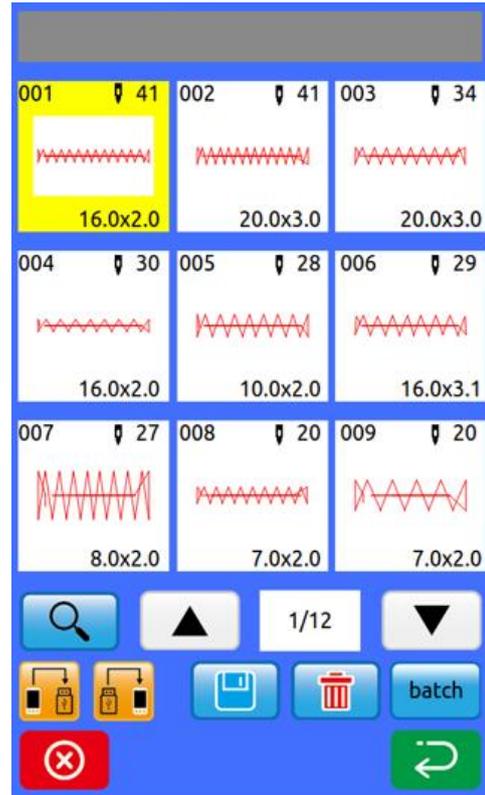
After confirming the pattern number, press , the data of the previously displayed pattern will be copied to the new registered pattern, and after the operation, it will return to the new registered pattern data input interface. If the input number has already been registered, it will prompt whether to overwrite the saved pattern. Exit the registration interface after pressing the  button.



2.5 Pattern copy

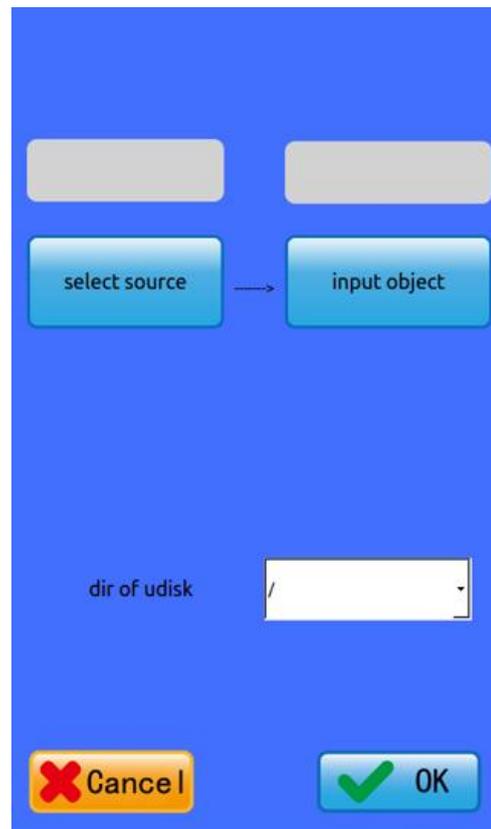
Copy panel pattern to U disk

Press the  button to enter the pattern management interface (as shown on the right), select a pattern or batch select multiple patterns in the pattern management interface, Press the  button, "Please wait..." appears on the screen, return to this interface again to indicate that the copying is complete, at this time the selected pattern is copied to the root directory of the U disk.



Copy the U disk pattern to the panel

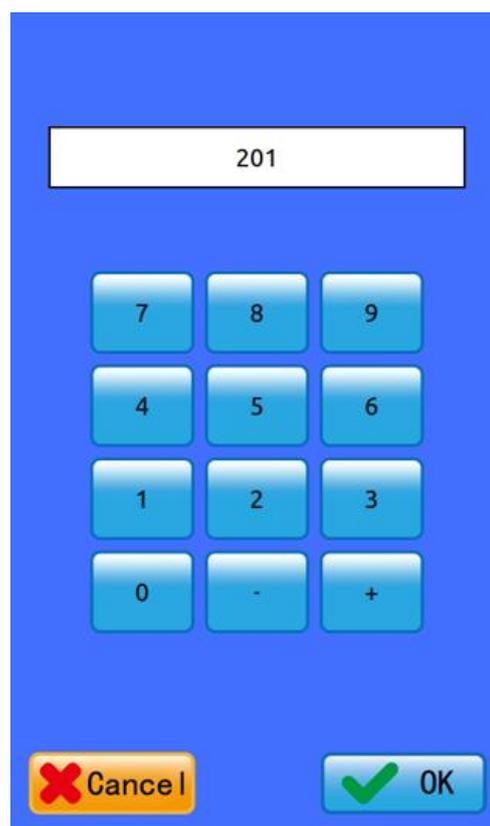
Press the  button to enter the pattern management interface (as shown on the right), select a pattern or batch select multiple patterns in the pattern management interface, Press the  button to enter the U disk pattern copy interface (as shown on the right), press the U disk directory to select several U disk directory locations.



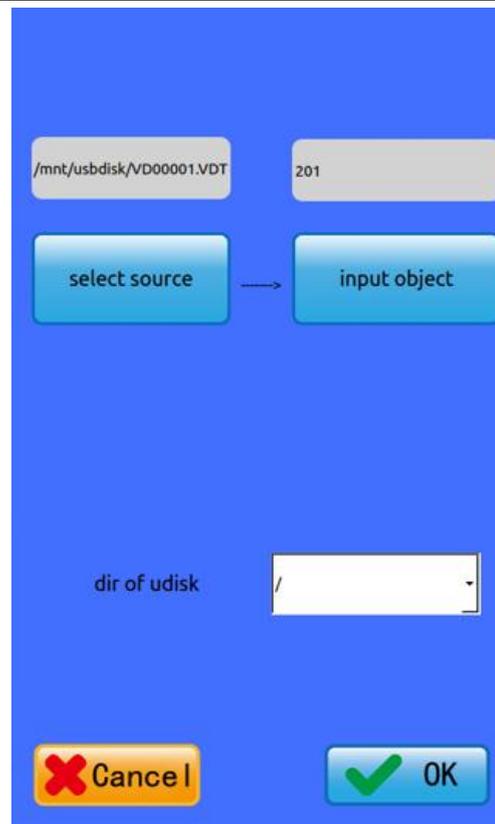
Click on **select source**, enter the folder where the U disk directory is located (as shown on the right), select the pattern file to be copied, Press the **OK** button to enter return to the previous interface.



Press the **input object** button to enter, enter the input interface (as shown on the right), enter the **OK** pattern number (after No. 200), return to the previous interface after confirming.

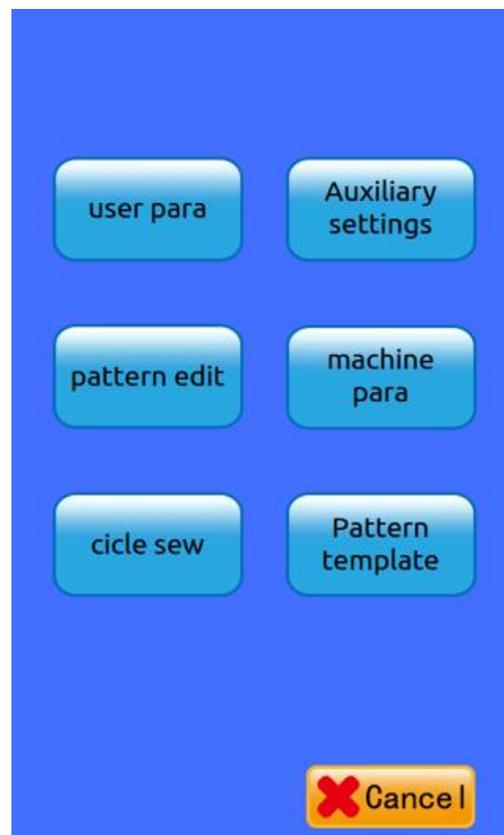


After the source file and target file are selected, Press the  button on this interface to copy and exit the current interface.

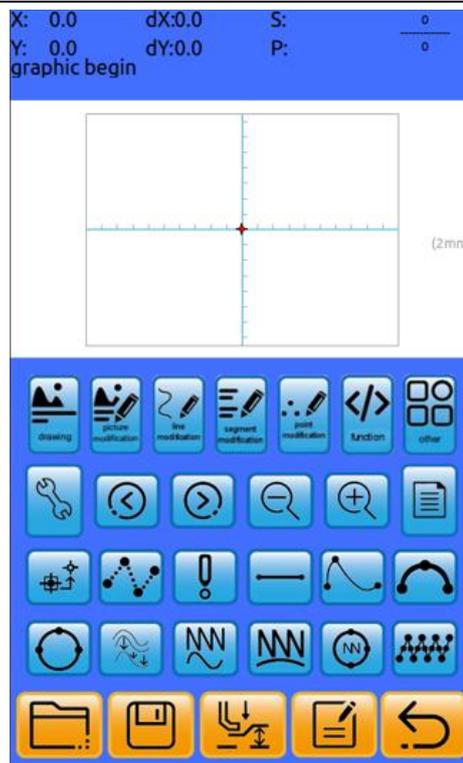


2.6 Pattern naming

Press the  button on the input interface to enter the menu interface (as shown on the right)



Press the **pattern edit** button to enter the boarding interface (as shown on the right).



Press in the  pattern naming interface to enter the pattern naming interface (as shown on the right).

A	delete	Delete input characters one by one
B	Shift right	Cursor right
C	Shift left	Cursor left
D	Empty	Clear all characters currently entered

Select the character you want to input and press

to  end the pattern naming operation.

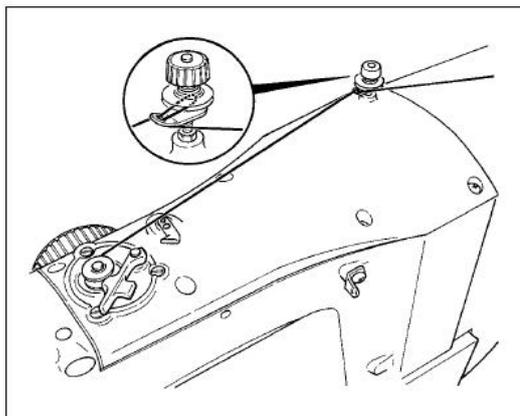
The character position can be determined by moving the cursor, and the delete key can eliminate the character in this position.



2.7 Winding

① Install the bobbin

Insert the bobbin into the winding shaft. As shown on the right.



② Display the bottom thread winding interface

On the sewing interface, after pressing the **wind** winding button, the winding interface is displayed (as shown on the right).

③ Start winding

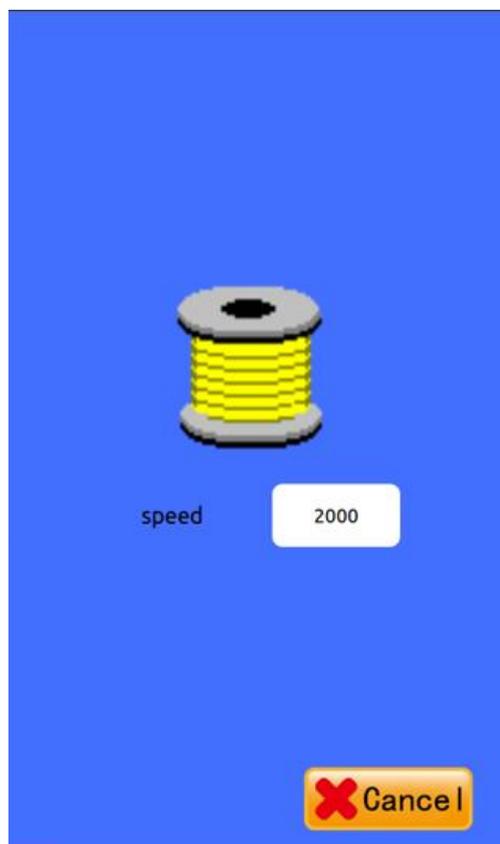
After stepping on the left pedal to drop the presser foot, step on the start pedal to start winding.

④ Stop sewing machine

After winding starts, step on the start pedal again to stop the winding. After the winding stops, step on the left pedal and lift the presser foot to return to the sewing mode.

⑤ Modify winding speed

Click the speed position to modify the winding speed



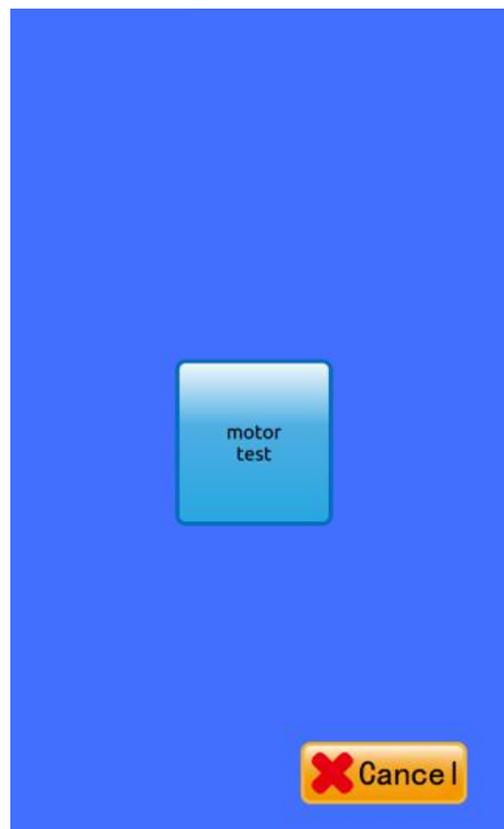
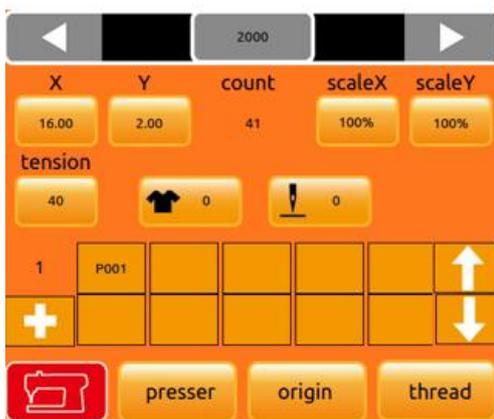
2.8 Thread

Press the **thread** button in the input interface or sewing interface to enter the threading interface, after threading is

completed, press the **Cancel** key to exit the threading interface and return to the corresponding input interface or sewing interface.

2.9 Origin test

Press the "origin" button on the input interface to enter the origin detection interface, Press the "motor test" button, the machine will find the origin, which is used to test the origin position.



3.0 Pattern selection

① Enter the pattern management interface

In the main interface (as shown on the right),

press the "  " button to enter the pattern management interface.

② Choose a pattern

Pattern management interface (as shown on the right)

The pattern display area can display 12 patterns per page,

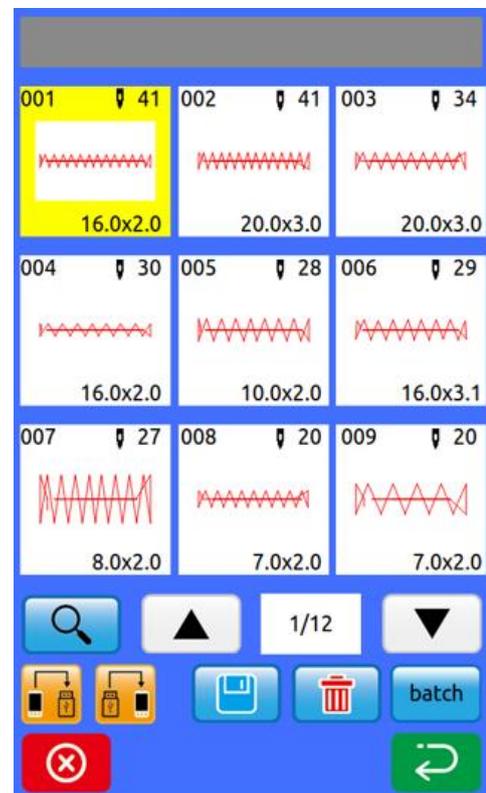
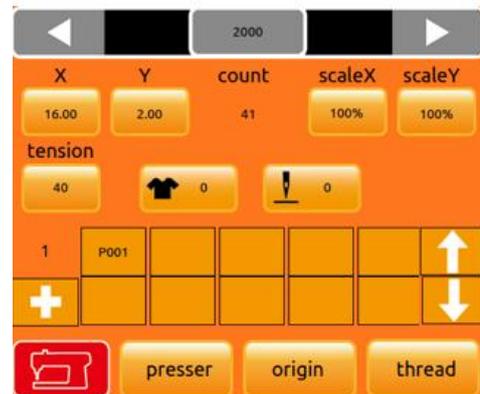
The upper part of each pattern is the sewing shape of the pattern, and the lower part is the pattern number. Click the pattern shape or pattern number to select a pattern. After selecting a pattern, the information of the currently selected pattern is displayed at the top of the interface. Pattern information includes pattern number and pattern name. Press

 to complete the pattern selection operation.

④ Pattern deletion

After selecting a pattern, press the  key to delete the pattern.

Note: The deleted pattern cannot be retrieved, please operate with caution.



3.1 Sewing data setting

Press '' or '

Setting interface, directly enter the speed value

3.1.1 Trial sewing operation

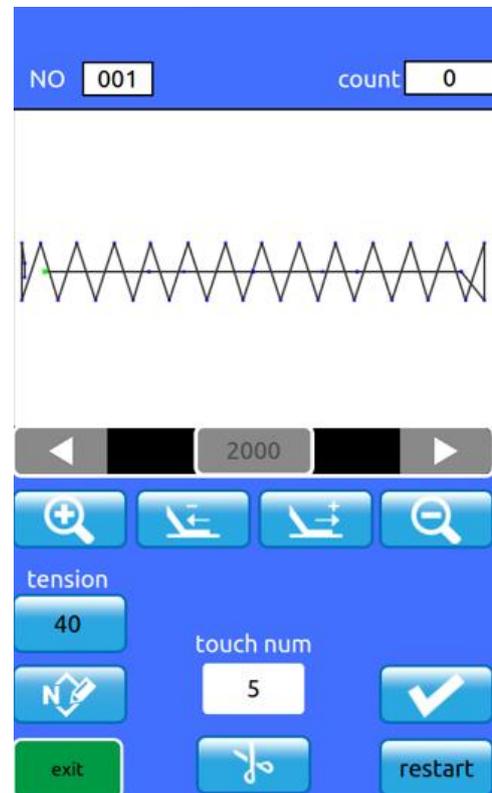
① Enter the sewing interface

In the data input interface, after pressing the ready key "", the background color of the ready key will change to green "", and the sewing interface will be entered at this time.

② Into the trial sewing

In the sewing interface, press the "" key to enter the trial sewing state (as shown on the right):

at this time, the "" and "" buttons are available.



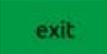
③ Start trial sewing

After entering the trial sewing interface, the presser foot will drop, and use the presser foot back key "" and presser foot forward key "" to move stitch by stitch.

Or press "" to input the number of stitches N, and jump directly to the Nth stitch.

Or touch to display the pattern, click "" to jump directly to the stitch.

④ End of trial sewing

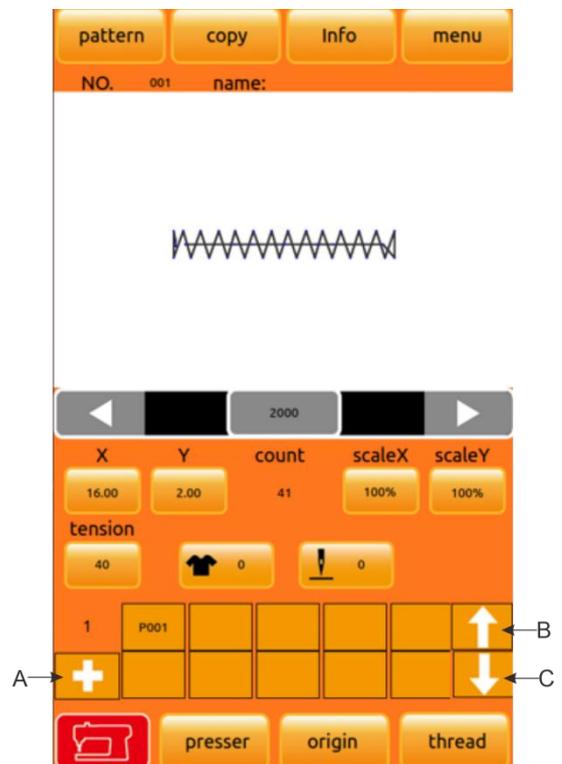
Press the "" button to exit the trial sewing state, return to the sewing interface, and return to the starting point of the pattern.

In the trial sewing interface, you can directly step on the start pedal at any position, and the machine will start sewing from the current position and return to the sewing interface.

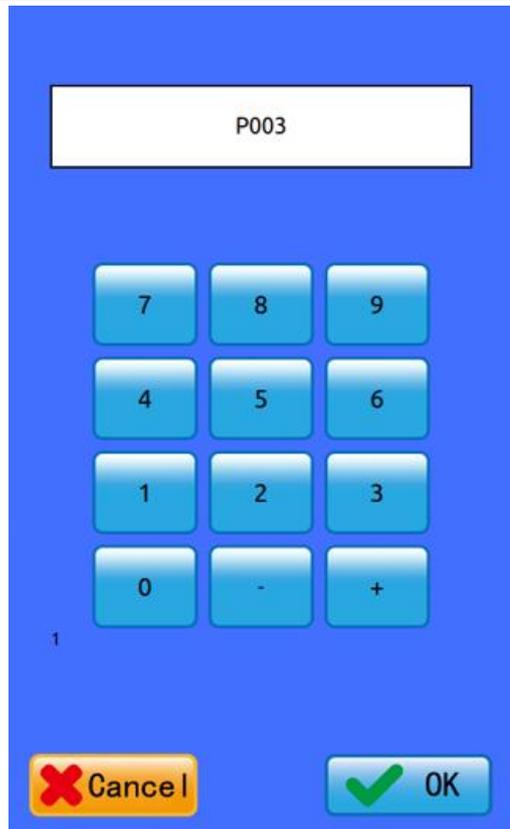
4 P pattern operation

4.1 Register P pattern

Click the button on the normal pattern input interface to register P pattern
B/C button can switch P pattern folder



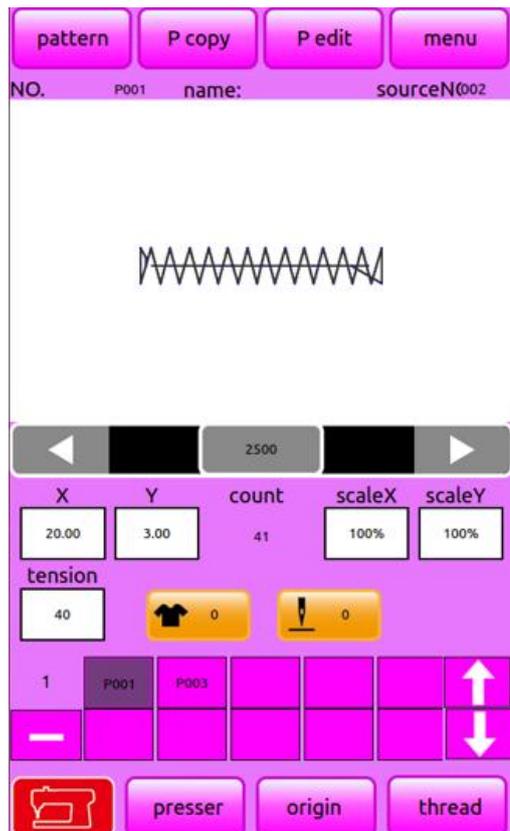
Save the P pattern number, and the current common pattern will be registered in the P pattern



After registration, click the P pattern button in the interface to switch to P pattern, and press

"" on the current interface to enter the sewing interface

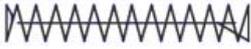
Click P edit on the current interface to enter to edit P pattern parameters



4.2 Edit P pattern

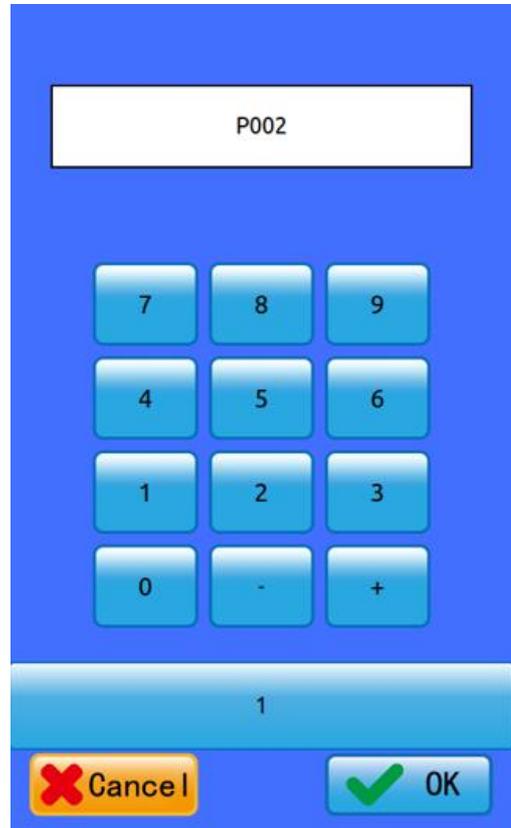
Click "P Edit" on the P pattern input interface to enter the P edit interface (as shown on the right)
Can edit the pattern X, Y scaling, thread tension speed, X, Y offset and other parameters

Click the " OK " or " Cancel " button to exit the current interface and return to the main interface of P pattern

PNO.		width	
P001		20.00	
number		height	
41		3.00	
source NO			
002			
scaleX:	scaleY:	tension	speed
100%	100%	40	2500
moveX:	moveY:	foot height	presser2:
0.0	0.0	14	6
			

4.3 Copy P pattern

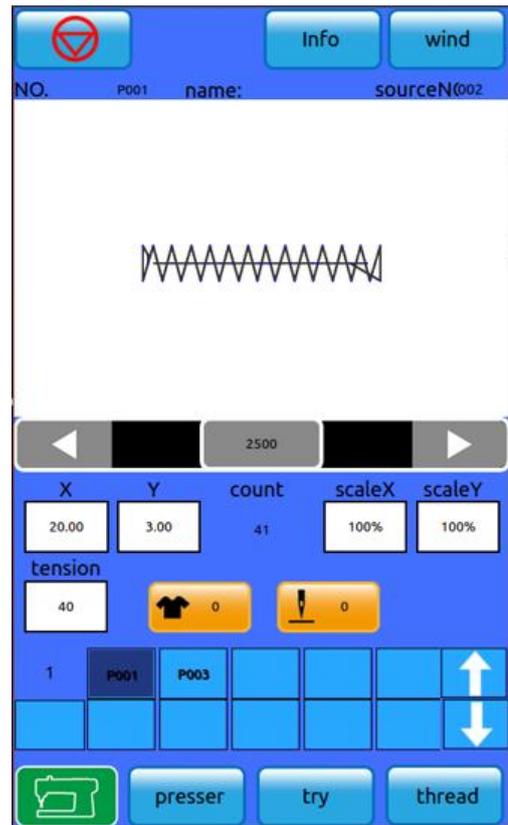
Click "P Copy" in the P pattern interface to copy the current P pattern to the new P pattern number



4.4 P pattern sewing

In the P pattern input interface, press "" to enter the sewing interface (as shown on the right)

Sewing operation can be performed by stepping on the pedal



5 Combination (C) pattern operation

5.1 C pattern data input

The combined pattern is referred to as C pattern, which is composed of a group of registered patterns, and each group of C pattern can enter up to 6 sub-patterns. A total of 99 groups of C patterns can be registered.

1. Enter C pattern setting interface

Click the "Menu" button on the main interface to enter the setting interface, and then click "Cycle Sewing" to enter the C pattern setting interface. As shown on the right.

A: C pattern adding button

B: C pattern naming key (string)

C: C pattern query key

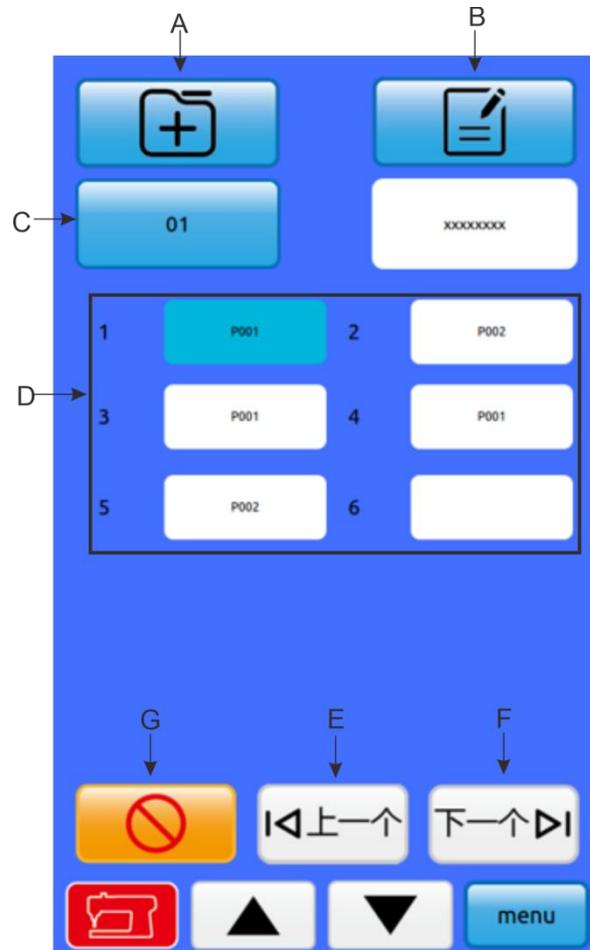
D: Sub-pattern of current C pattern registration

E\F:C pattern sequence sub-pattern switching key

G: Delete key

2. Set C pattern

Press the A key to enter the C pattern number editing interface and set the pattern number. Click the C button to enter the C pattern query interface, where you can see the registered C pattern numbers. After setting the C pattern number, click the button in the D area to enter the sub-pattern setting interface, select the sub-pattern to be registered in this interface, press the OK key to select, and return to the C pattern setting interface.



5.2 C pattern sewing

Press (Enter the pattern confirmation button)

"" to enter the cycle pattern

confirmation interface, as shown in the figure on the right, step on pedal 1 (or press the second mechanical button at the bottom of the screen) to lower the presser foot, and step on pedal 2 (or press (The third mechanical button at the bottom of the screen) starts sewing. After sewing a pattern, it will automatically enter the next pattern, and you can continue to sew by stepping on the pedal. Press "" to exit the cycle pattern confirmation interface.

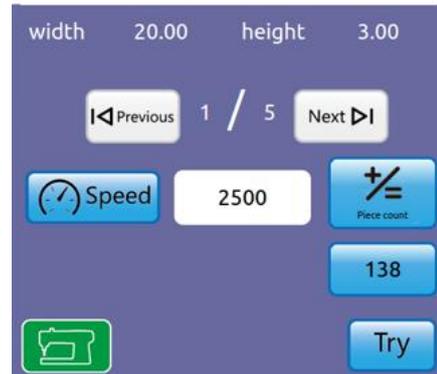
:Winding

:Lift the middle presser foot

 Speed :Set speed value

:Switch to the last pattern currently sewn

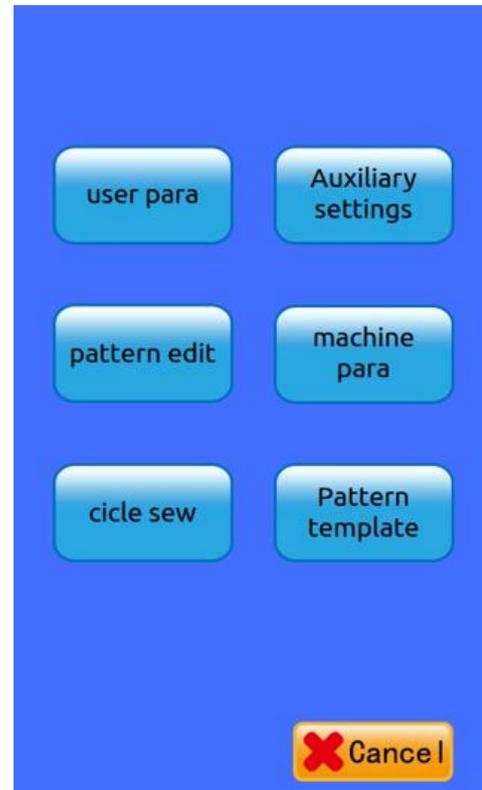
:Switch to the next pattern currently being sewn



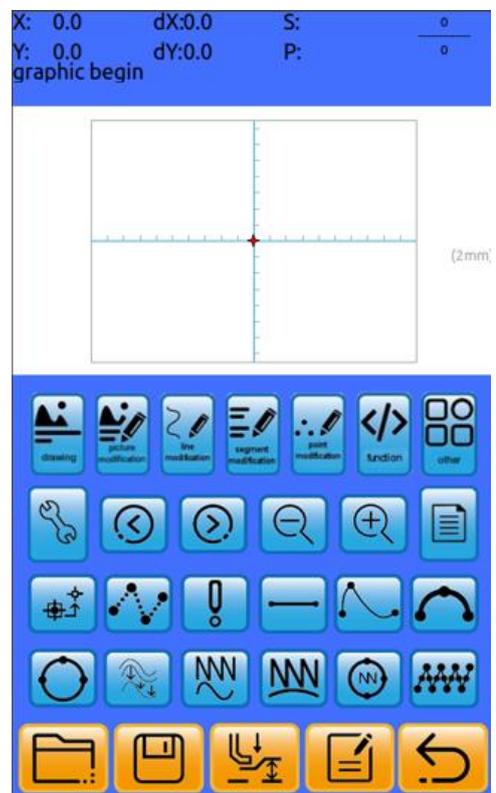
6 Pattern editing

6.1 Enter pattern editing mode

Press the " **menu** " button on the data input interface to enter the menu interface (as shown on the right).



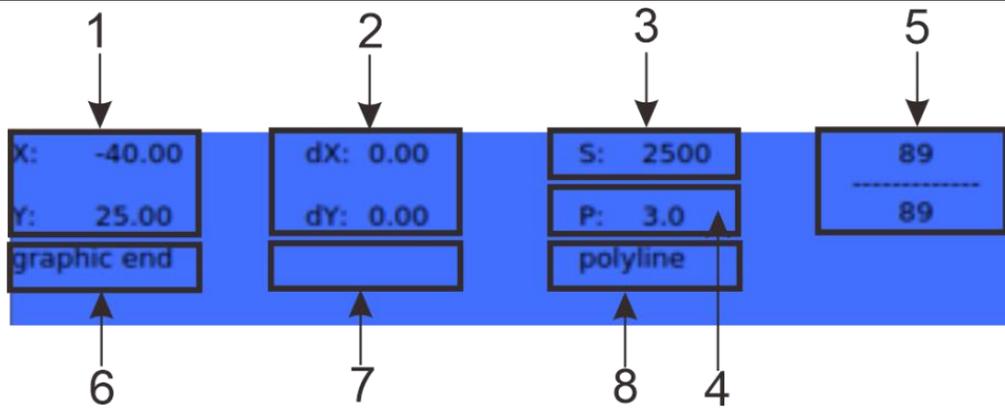
In the menu interface, press " **pattern edit** " to enter the pattern editing (printing) interface (as shown on the right).



Function Description:

Button	Features
	Choose a pattern
	Save pattern
	Move the middle presser up and down
	Name the pattern
	Exit pattern making
	Attribute settings such as paperback
	Back feed
	Forward feed
	Zoom out
	Zoom in
	Code list
	Draw empty walk
	Point seam
	Straight seam
	Curved seam
	Arc seam
	Round seam
	Multiple stitches
	Straight zigzag seam
	Curve zigzag seam
	Arc zigzag seam

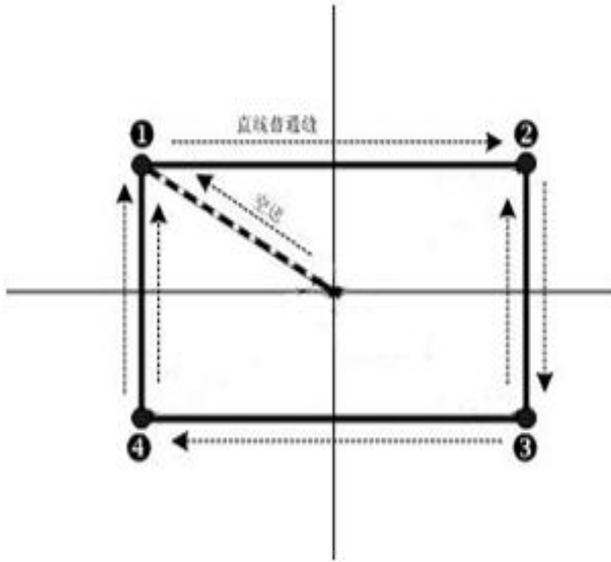
Button	Features
	Round zigzag seam
 绘图	Drawing related buttons are displayed at the bottom of the interface
 整图修改	The bottom of the interface shows the whole picture modification related buttons
 整线修改	The bottom of the interface displays the related buttons of the whole line modification
 段修改	Buttons related to segment modification are displayed at the bottom of the interface
 点数修改	Modify the related buttons at the bottom of the interface
 功能码	Function code related buttons are displayed at the bottom of the interface
 其它	Other buttons are displayed at the bottom of the interface



NO.	Item	Description
1	Absolute coordinates	Represents the absolute coordinates of the origin from the current position of the machine pin.
2	Relative coordinates	Represents the relative coordinates of the current position of the machine pin.
3	Speed	Represents the sewing speed or air delivery speed of the current point.
4	Interval	Represents the current factor sewing stitch length.
5	Number of needles	The numerator represents the current number of needles, and the denominator represents the total number of needles.
6	Drop needle type	Indicates the type of drop pin position.
		The beginning of a pattern means the starting position of the design.
		The middle point of a line, which means that it is a halfway point (that is, not the vertex or the segment terminal).
		A vertex that represents the vertex of a polyline.
		A segment terminal that represents the terminal position of a line.
		A pattern terminal that represents the final position of a pattern.
7、 8	Type of line or function code	When sewing data, show the line type (air delivery, line seam, curved seam, etc.). function code, display the type of the function code (tangent, etc.).

6.2 Pattern Editors

Using the pattern editing function, enter the following pattern patterns.



Input point:

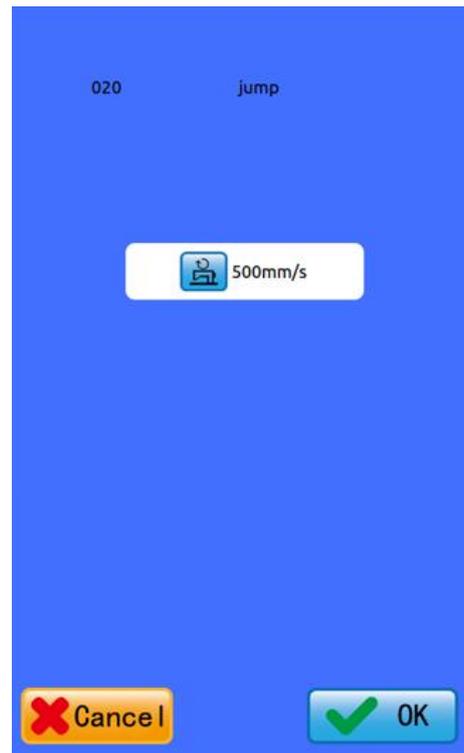
	X (mm)	Y (mm)
1	-10.00	8.00
2	10.00	8.00
3	10.00	-8.00
4	-10.00	-8.00

Enter order: As shown in the dashed arrow in the left figure.

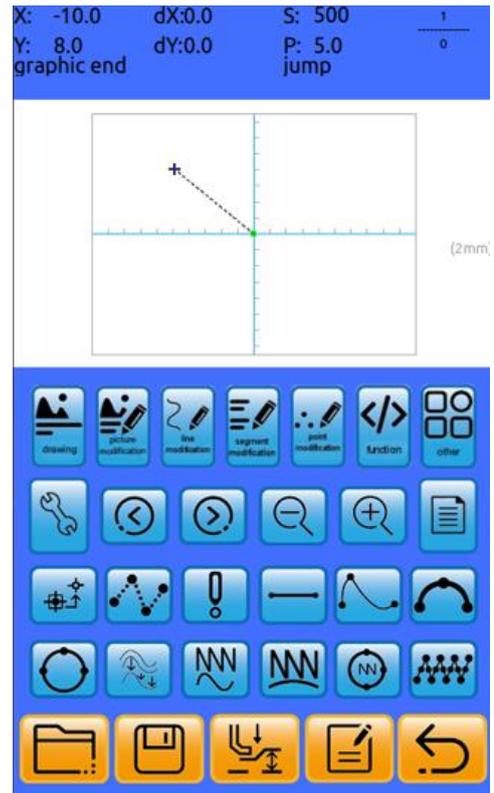
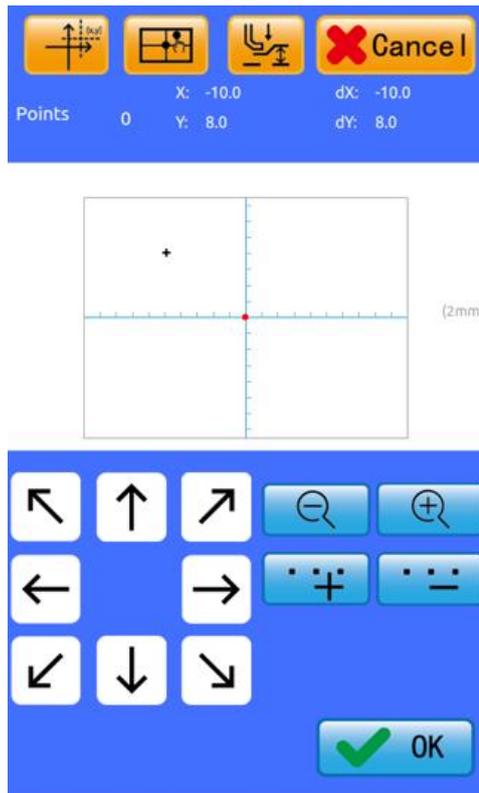
Air send input

In the pattern editing standard interface, press the

Air send button  , Displays a null-setting interface:



Specify the interface at the null delivery location, using the move key, moving the cursor (pin position) to (-40,25), Press  key When you are sure, return to the pattern editing standard interface and display an empty send stitch:



Input of straight line common seam

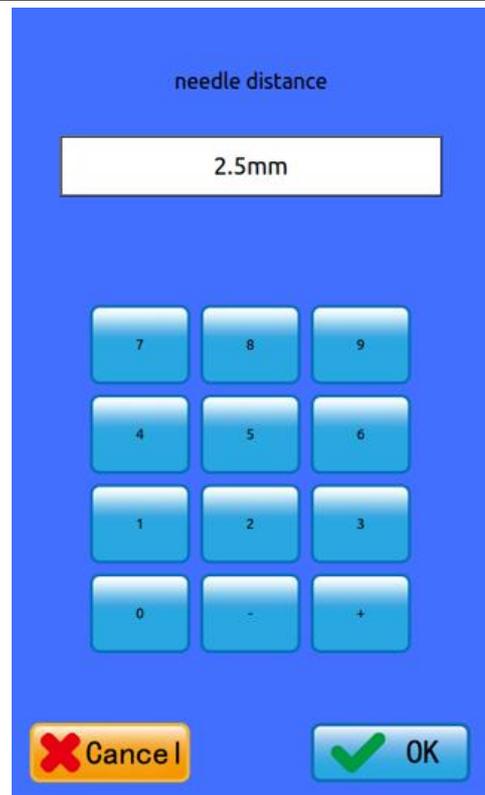
In the pattern editing standard interface Press the straight seam key  , enter the straight line common seam needle distance to set the interface:



In the setting interface of linear ordinary sewing, press the sewing seam length setting button to enter the sewing seam length setting interface, as shown in the right figure.

Press the number keys 2 and 5 in sequence to change the stitch length

Change to "2.5", press the OK key to save and return to Setting interface for straight-line ordinary sewing.

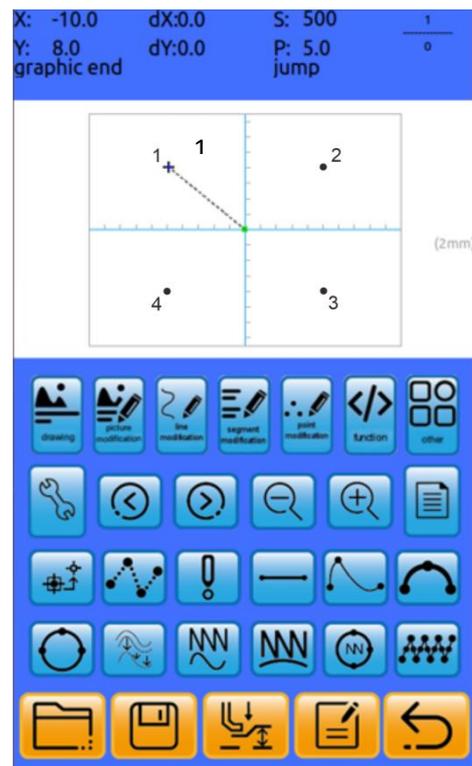


Confirm the needle distance display value is "2.5mm", press the confirmation key 

enter the straight line common seam position setting interface.

Under this interface, press the move key to move the cursor (pin position) from 1 to 2, and then press the insertion point button .

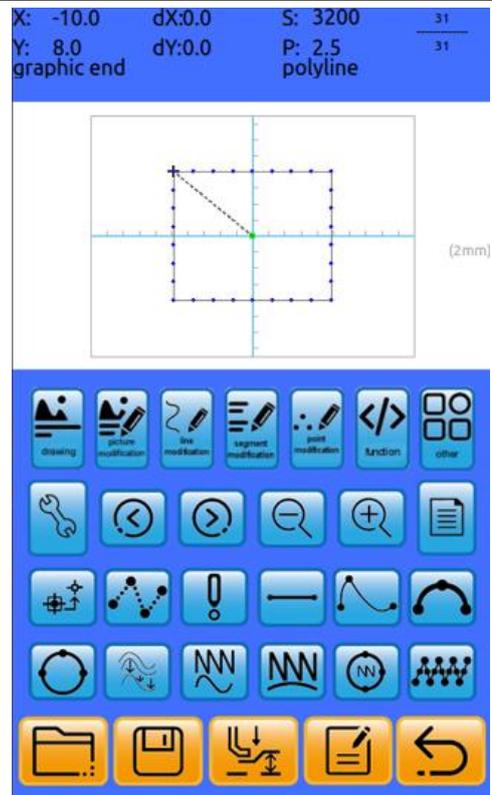
Repeat the above move, moving the cursor in the order of 1→2→3→4, as shown in the picture on the right.



After confirming the pattern, press the key



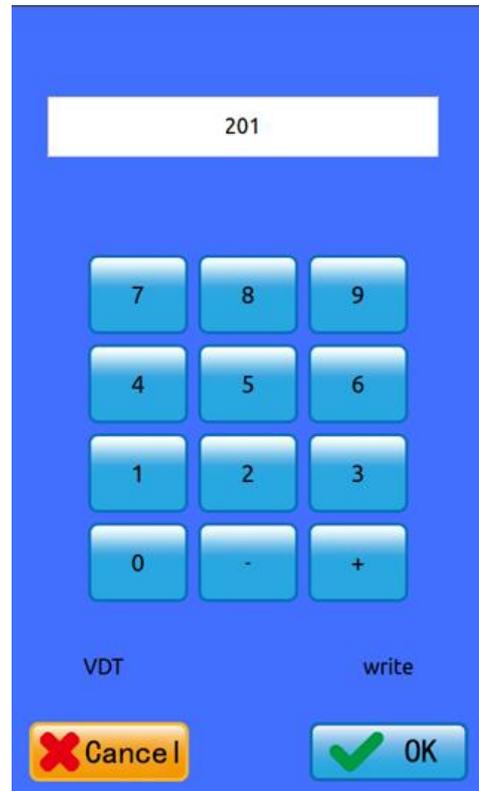
to generate the pattern data and return to the pattern Edit standard interface, show pattern patterns.



Save the pattern

Press  key, Enter the pattern to save the screen, save the edited pattern, as shown in the right picture.

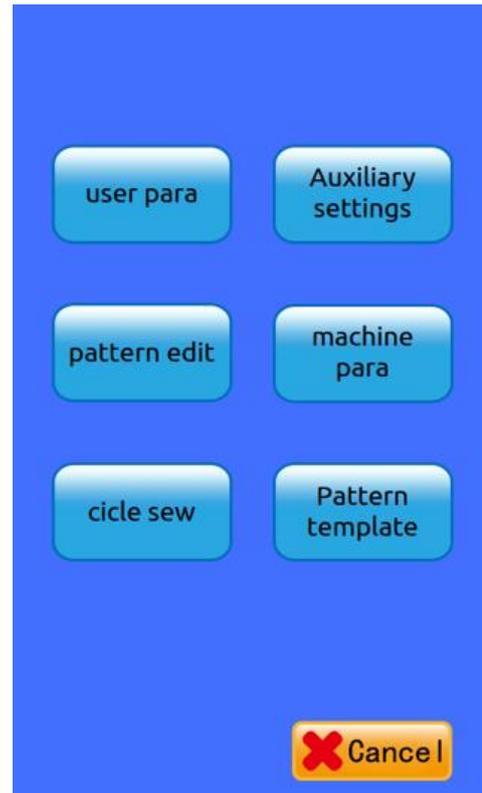
The system automatically sets the sample number, and the user can enter the desired value through the numeric keypad. Press the key  to save the pattern.



6.3 Exit pattern editing mode

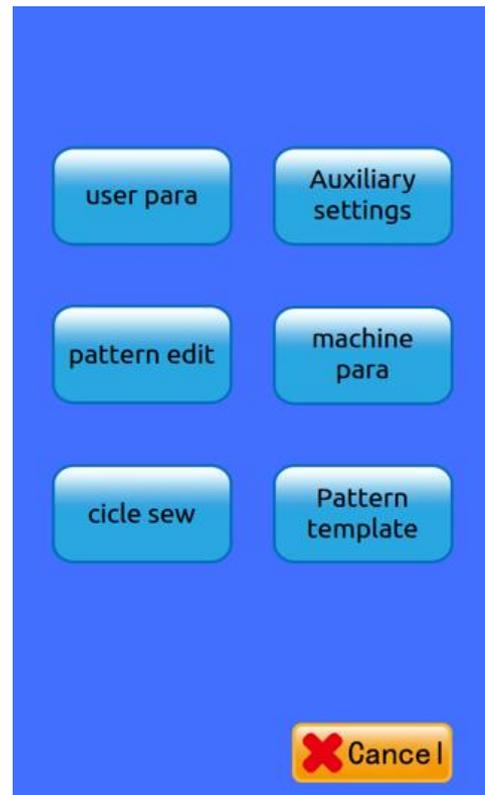
In the pattern editing standard interface, press

" Cancel" to exit pattern editing and enter the menu interface (as shown in the right figure).



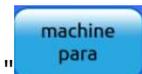
7 Set up

From the menu (setting) interface (as shown in the figure on the right), you can return to normal sewing, you can enter cycle sewing (see Chapter 3 Combination (C) Pattern Operation for "Cycle Sewing"), and you can also enter parameter settings. Some parameter and option settings.

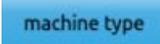


7.1 Mechanical parameters

From the menu (settings) interface, press the

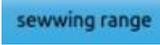


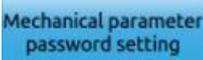
" " button to enter the mechanical parameter interface (as shown on the right). To enter the mechanical parameter interface, you need to enter a password. The password is 2013.

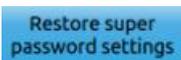
1)  : Choose a different machine model (1900/1903).

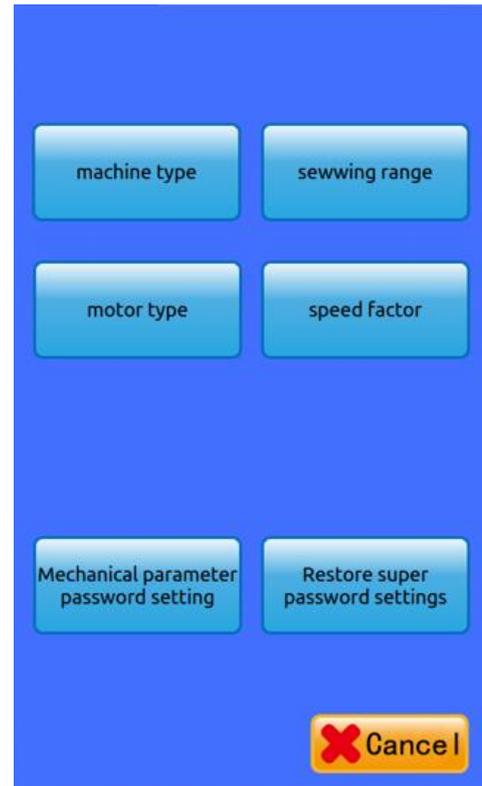
2)  : contains two motor types

3)  : the speed multiplier, this function is generally not used.

4)  : the range of sewing.

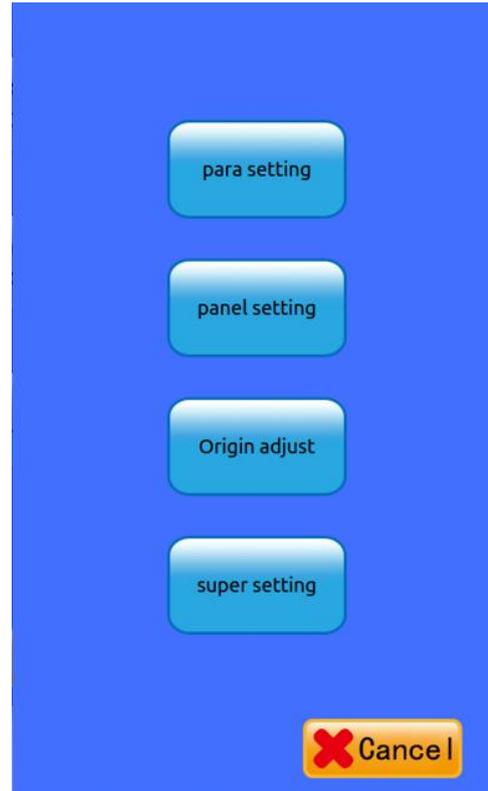
5)  : mechanical parameter password setting.

6)  : restore super password setting.



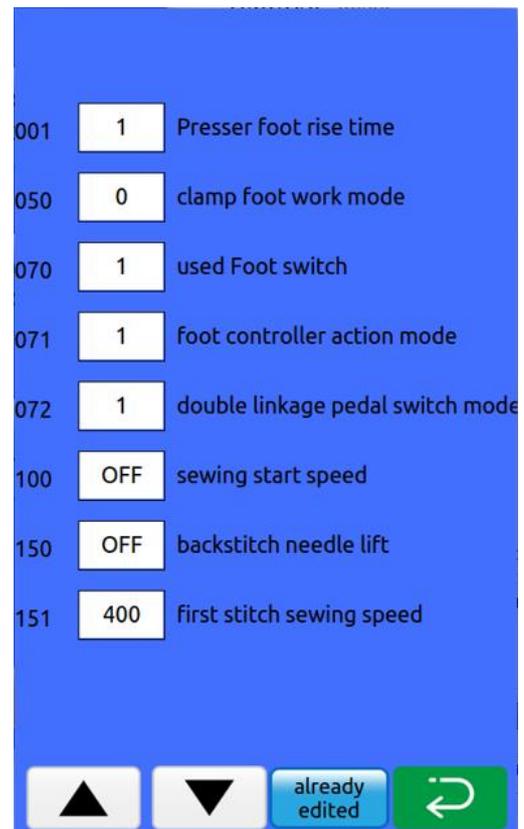
7.2 Parameter settings

From the menu (settings) interface, press the " **user para** " button to enter the user parameter interface (as shown on the right), and you can select different buttons to set the corresponding parameters.



View modified parameters

Click the " **already edited** " button to enter the password input interface, enter the password "2013" to enter the modified parameter interface.



Modified parameter interface

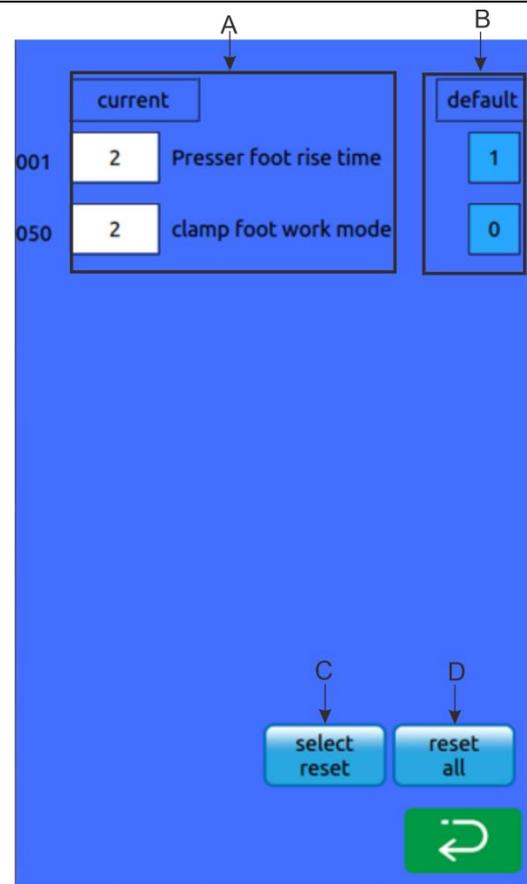
A: Indicates the current parameter value

B: indicates the default value

Press the B area button, select the parameter to be restored to the default value, and click the C button to restore

Click the D button directly to directly restore all parameters to their default values

Return to the parameter setting interface after modification



7.2.1 Presser foot setting

The description of the presser foot setting parameters is shown in the table below:

NO	Parameter name	Set Range	Initial value	Set content
001	Pressure box rise time	OFF/1/2	1	Pressure box rise time: After sewing finished, the pressure frame rises time Off: Do not automatically rise 1: In the position of the last stitch rises 2: Move to the beginning of sewing to rise
050	Presser foot work mode	0/1-7/8/9-11/12	0	Presser foot work mode: 0: Standard mode; 1-7: reserved; 8: One-stage electric pedal; 9-11: reserved; 12: One-key start. Note: When set to one-key start, if 25 items (auto start) in advanced settings are

				turned on, and 002 (left and right presser foot down action) in basic setting 1 is set to 8 (grab → delay → press plate), then you can automatically start up.
070	Pedal controller Switch used	1/2	1	Pedal controller Switch used 1: Pedal Controller switch (Single step) 2: Double-link pedal controller switch (optional)
071	Action mode of foot controller	1/2	1	Action mode of foot controller: 1: The secondary presser foot is invalid 2: The secondary presser foot is effective
072	Double-link pedal controller switch		1	Double-link pedal controller switch
471	Setting the rising position of the presser foot/button clip		14	Set the height of the presser foot in mm.
472	Setting of the presser foot at both ends		6	Set the height of the secondary presser foot in mm.

7.2.2 Starting speed setting

NO	Parameter name	Set Range	Initial value	Set content
100	Setting method of slow start mode	ON/OFF	OFF	Setting method of slow start mode ON: Turn on OFF: Closure
151	Sewing begins with the speed of the 1st stitch	200-3200sti/min	800	Sewing begins with the speed of the 1st stitch Scope: (200-3200sti/min) unit: 100sti/min
152	Sewing begins with the speed of the 2st stitch	200-3200sti/min	1200	Sewing begins with the speed of the 2st stitch Scope: (200-3200sti/min) unit: 100sti/min
153	Sewing begins with the speed of the 3st stitch	200-3200sti/min	2500	Sewing begins with the speed of the 3st stitch Scope: (200-3200sti/min) unit: 100sti/min
154	Sewing begins with the speed of the 4st stitch	200-3200sti/min	3200	Sewing begins with the speed of the 4st stitch Scope: (200-3200sti/min) unit: 100sti/min
155	Sewing begins with the speed of the 5st stitch	ON/OFF	3200	Sewing begins with the speed of the 5st stitch Scope: (200-3200sti/min)

				unit: 100sti/min
991	Slow start	1-9	8	Slow start range (1-9)

7.2.3 Cutting line settings

A password is required to enter the cutting line setting interface, the password is 2013A password is required to enter the cutting line setting interface, the password is 2013

NO	Parameter name	Set Range	Initial value	Set content
164	No cutting line action	ON/OFF	OFF	No cutting line action On: All shear lines are not valid OFF: The sewing data, the cutting line
173	Cutting line angle adjustment (degrees)	-50-50 degrees	0	Cutting line angle adjustment (-50-50 degrees) Unit: 1 degree.

7.2.4 Disconnection detection setting

NO	Parameter name	Set Range	Initial value	Set content
962	Detect broken thread	ON/OFF	ON	Detect broken thread On: valid OFF:Disabled
1002	Number of needles for broken thread detection	1-30 Needle	4	Number of needles for broken thread detection Scope: (1-30 Needle) unit: 1 Needle

7.2.5 Other settings

NO	Parameter name	Set Range	Initial value	Set content
150	Reverse Stitch lift Up	ON/OFF	OFF	Reverse Stitch lift Up On: The motor reverses when the upper axis stops and the needle rod returns to the top position Attention] Lift the inverted stitch, because the pick rod will stop at a lower than normal position, so start sewing, pick the pole to rise. Therefore, the individual sewing conditions will appear to take off the needle. OFF: Invalid
260	All feed time adjustments	-80-80	0	Adjusting range of all feeding time (-80-80)
462	Zoom reference point	0~3	0	Zoom reference point 0:Origin; 1:Starting point; 2:The center point of the graph; 3:The upper left point of the graph
500	Bottom line clamp function setting	ON/OFF	OFF	Bottom line clamp function setting On: Valid OFF: Invalid
551	Opening of the upper thread tension at the beginning of sewing	ON/OFF	OFF	Opening of the upper thread tension at the beginning of sewing: On: Valid OFF: Invalid
553	Take-up solenoid enable	ON/OFF	ON	Take-up solenoid enable On: Valid OFF: Invalid
554	Take-up angle adjustment	-30~30	0	Take-up angle adjustment Range(-30~30)
566	Whether the bottom line clamp device is installed	ON/OFF	OFF	Whether the bottom line clamp device is installed On: Bottom line clamp device installed OFF: The line clamp device is not installed
582	Tighten the upper thread tension at the beginning of sewing	ON/OFF	ON	Tighten the tension of the upper thread at the beginning of sewing: On: Valid OFF: Invalid
584	End upper thread tension opening angle is shifted	-110~40	0	End upper thread tension opening angle is shifted Range (-110~40 degree)
585	Upper thread tension value at the beginning of sewing (tightening)	0-500	255	Upper thread tension value at the beginning of sewing (tightening) Range (0-500)
590	Cutting speed	200~400 Sti/min	280	Cutting speed 200~400Sti/min Unit (40sti/min)

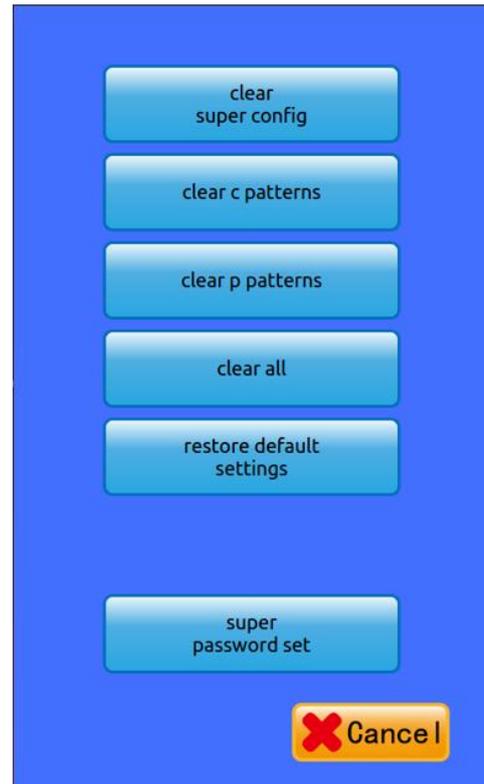
				Initial default value 280sti/min
592	Final speed of main motor	400/800	800	Final speed of main motor 400~800sti/min
655	Trimming angle adjustment	0		Trimming angle adjustment Range(-50~50 degree) Unit:1 degree
963	Tensioner mode	0/1	0	Tensioner mode 0: Manual tensioner 1: Electronic tensioner
964	Auto Run	ON/OFF	0	Auto Run On: Valid OFF: Invalid
966	Dialing mode	0/1/2	2	Dialing mode: 0: invalid 1: Electronic 2: Pneumatic type.
999	Elastic coefficient	0/1	0	Elastic coefficient: 0:0806 coordinate system 1: Elastic band
1000	Dedicated external equipment	0/5/6	0	Dedicated external equipment 0: none 5: Ready signal 6: Automatic Ready signal
1001	Moving rigidity		1	Moving rigidity 86xseries default 0 43xseries default 1
1002	Number of stitches for disconnection detection	1~30	4	Number of stitches for disconnection detection range(1~30 stiche) Unit: 1 stitch
1003	Reverse switch	0~1	0	Reverse switch 0:Reverse stepping is invalid 1:Reverse step on emergency stop
1008	Push delay time	10~1000	20	Push delay time Range(10~1000ms) Unit: 10ms Initial default value 20ms
1009	Automatic online switch	ON/OFF	OFF	Automatic online switch OFF:off ON:open Initial default value OFF

7.3 Panel parameter setting

Parameter name	Set Range	Initial value	Set content
Fault finding	ON/OFF	OFF	Fault finding OFF: turn off ON: open
Beep	ON/OFF	ON	Beep OFF: turn off ON: open
Prompt tone use default tone	ON/OFF	OFF	Prompt tone use default tone OFF: turn off ON: open
volume	1-31	31	Volume range (1-31)
Default tone type	1-3	1	Default tone type range (1-3)
Stitch display	ON/OFF	ON	Stitch display OFF: turn off ON: open
The middle presser foot is raised when the pattern is moved	ON/OFF	ON	The middle presser foot is raised when the pattern is moved OFF: turn off ON: open

7.4 Super set

The super setting interface (as shown on the right) can clear configuration files and patterns. Please operate with caution. The password is 2013.



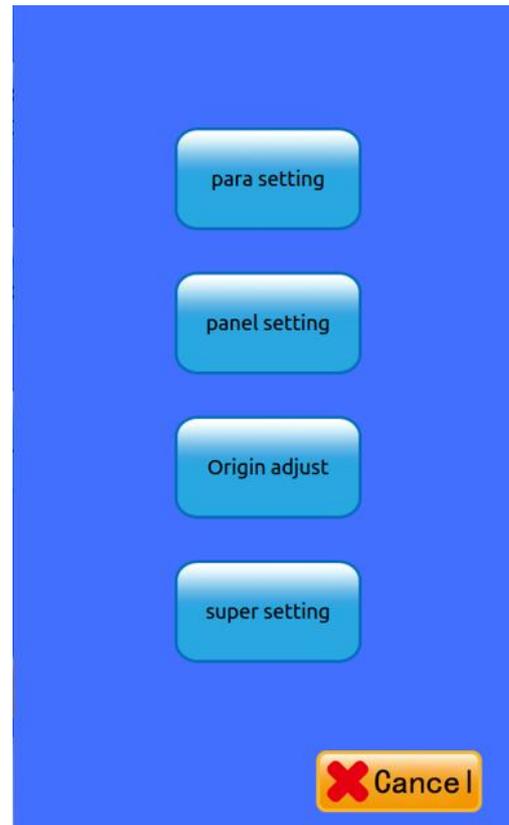
7.5 Origin adjustment

Origin adjustment

Return to the User para interface, click



" " to enter the origin adjustment interface.

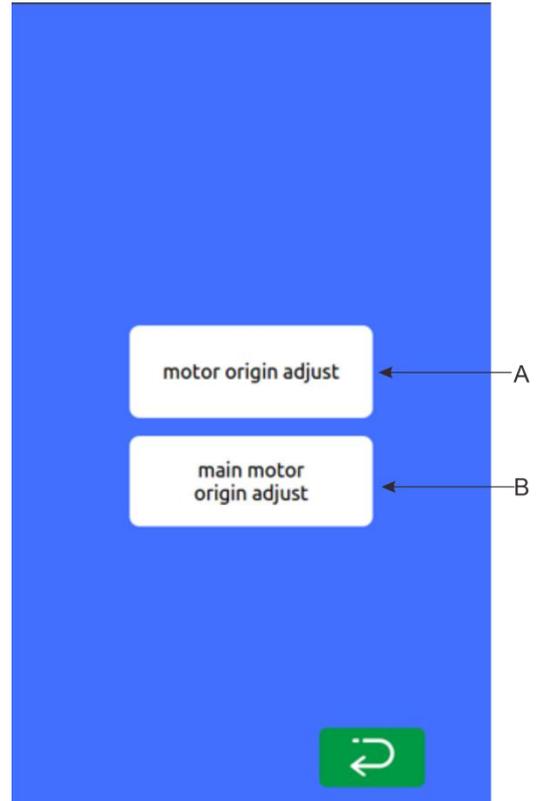


7.5.1 Motor origin adjustment

Enter the origin adjustment interface

A: Motor origin adjustment

B: Spindle origin adjustment



XYZ origin adjustment

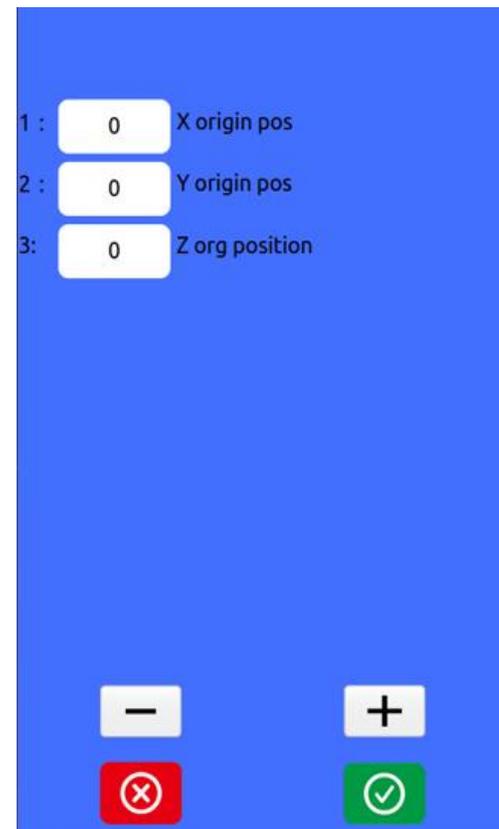
Press the amount to be adjusted, press

"" "" to adjust the corresponding origin

position, press "" to save and exit, press

"" to exit without saving

Find the origin when the machine exits the interface.



7.5.2 Spindle origin adjustment

Spindle motor origin adjustment (parking position)

Turn the manual spindle motor clockwise, click

"" at the parking position to save the current parking position angle

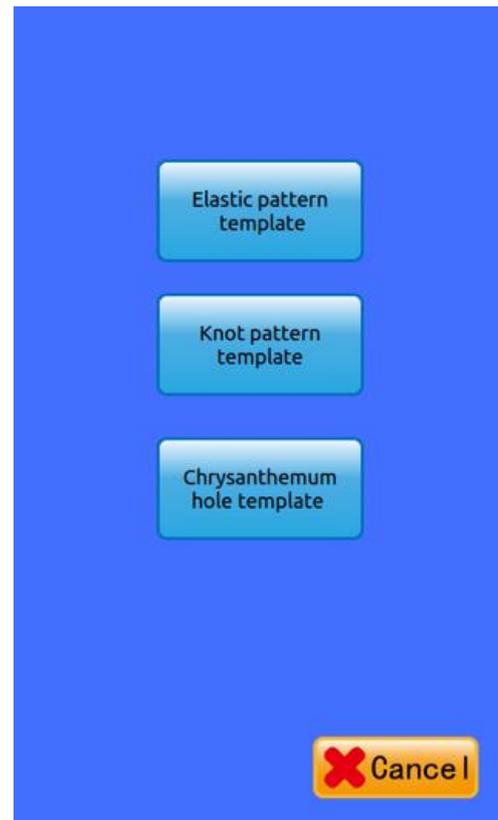
Spindle angle displays the current position angle of the spindle.



8 Pattern template

From the menu (setting) interface, press the

**Pattern
template** " button to enter the pattern
template interface (as shown on the right).

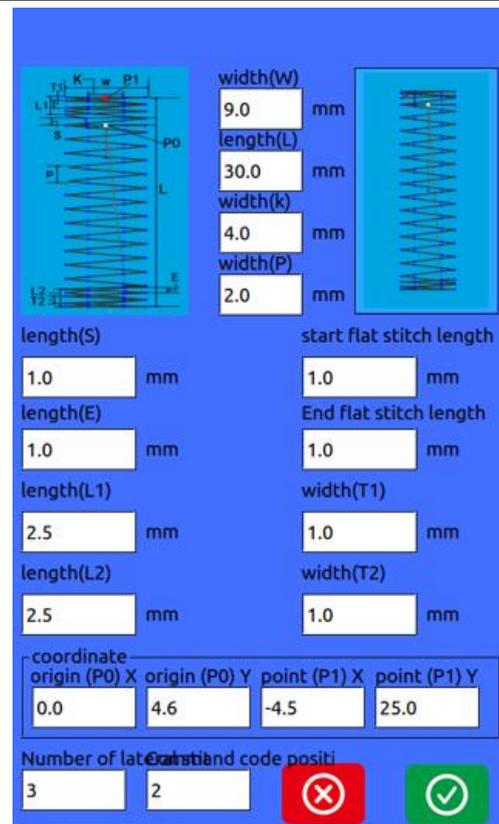


8.1 Elastic pattern template

Set the corresponding parameters, press the

"" key to generate the pattern, and return to

the main interface, press the "" key to return to the main interface directly.



width(W) 9.0 mm
length(L) 30.0 mm
width(k) 4.0 mm
width(P) 2.0 mm

length(S) 1.0 mm
length(E) 1.0 mm
length(L1) 2.5 mm
length(L2) 2.5 mm

start flat stitch length 1.0 mm
End flat stitch length 1.0 mm
width(T1) 1.0 mm
width(T2) 1.0 mm

coordinate			
origin (P0) X	origin (P0) Y	point (P1) X	point (P1) Y
0.0	4.6	-4.5	25.0

Number of lat... and code posi...
3 2  

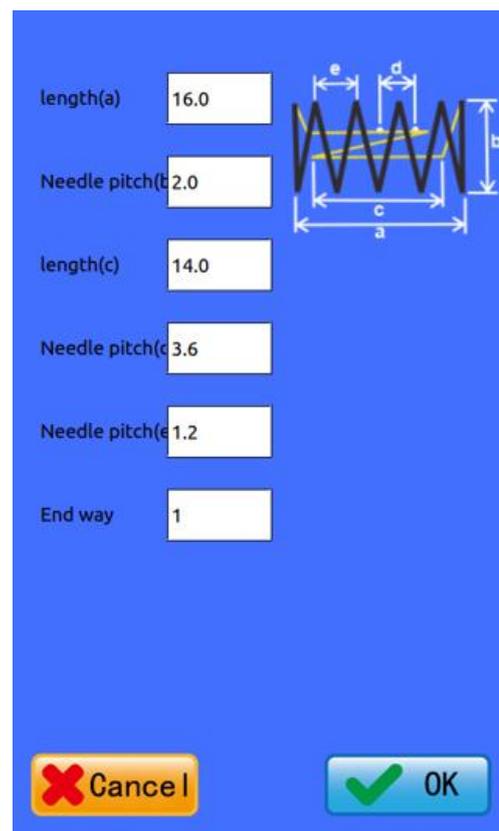
8.2 Knot pattern templates

Set the corresponding parameters, press the

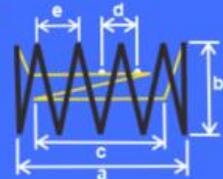
"" key to generate the pattern, and

return to the main interface, press the

"" key to return to the main interface directly.



length(a) 16.0
Needle pitch(b) 2.0
length(c) 14.0
Needle pitch(c) 3.6
Needle pitch(e) 1.2
End way 1



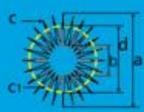
8.3 Chrysanthemum hole template

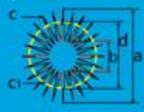
Set the corresponding parameters, press the



" " key to generate the pattern, and return to

the main interface, press the "  " key to return to the main interface directly.

Chrysanthemum eye first layer (mm)			
(d) Circle diar	(c1) Number		
<input type="text" value="4.5"/>	<input type="text" value="15"/>		
(a) Outer diamet	(b) Inner diameter	(c) Number of ne	
<input type="text" value="7.5"/>	<input type="text" value="2"/>	<input type="text" value="56"/>	

Chrysanthemum eye second layer (mm)			
(d) Circle diar	(c1) Number		
<input type="text" value="6"/>	<input type="text" value="15"/>		
(a) Outer diamet	(b) Inner diameter	(c) Number of ne	
<input type="text" value="8.5"/>	<input type="text" value="2"/>	<input type="text" value="85"/>	

coordinate			
Datum poin	Datum poin	econdary ori	econdary ori
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

9 Auxiliary settings

9.1 Date setting

Press the "**Auxiliary settings**" button from the menu (settings) interface to enter the auxiliary settings interface (as shown in the right picture).

date setting: set the date and time

Lock settings: set to automatically lock when

expired

Test transmission: You can view the list of test error

codes.

language: language setting.

Upgrade: upgrade the program of system.

test: test machine

Recover mechanical password: recover mechanical password



9.2 Language setting

language settings

Click "**language**" to enter the language setting interface.



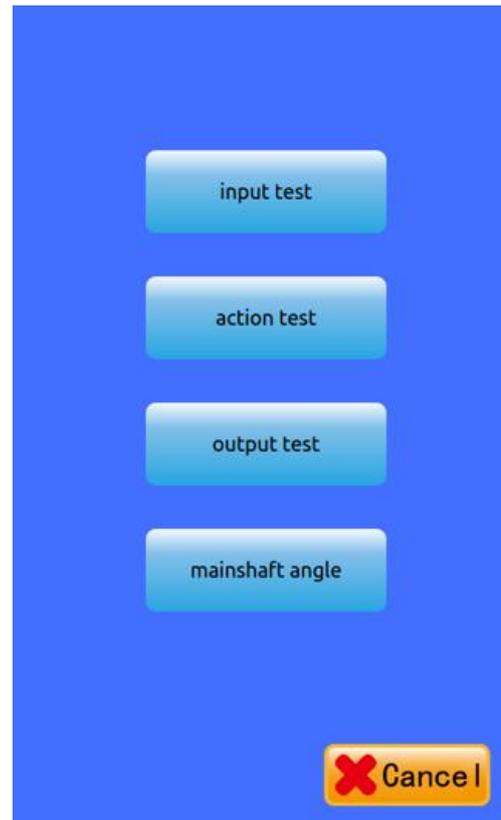
9.3 Test

Test

test: Click on the test button to enter the test interface (as shown on the right). In the test interface, you can test the machine's input test, action test, output test, and spindle angle test.

input test: including sensor test, motor encoder test and pedal calibration function;

mainshaft angle: display the current spindle angle, rotate the spindle, and display follow-up

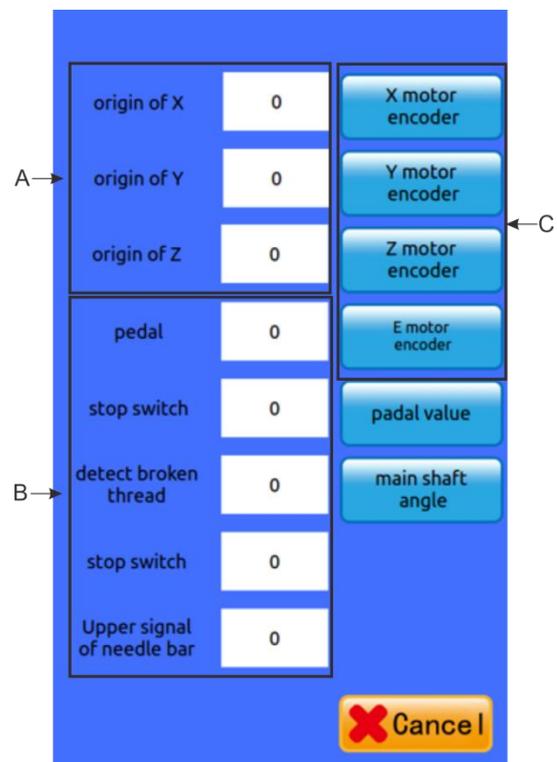


9.3.1 Input test

Input test

Press the "**input test**" button to enter the input test interface (as shown on the right)

Note: To view the encoder status of the C motor, you must view it when the motor is not online.



9.3.2 Pedal calibration

Pedal calibration

Click the " **padal value** " button to enter the pedal calibration interface,

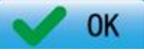
Press button A: the maximum value of the pedal

At this time, press the pedal to the end and wait until the pedal display value D is stable, press the

"  " button to save the current value

Press button B: middle position

Release the pedal at this time, wait until the pedal

display value D is stable, press the "  " button to save the current value

button to save the current value

Press button C: Maximum lift

At this time, step on the pedal backwards and wait until the pedal display value D is stable, press the

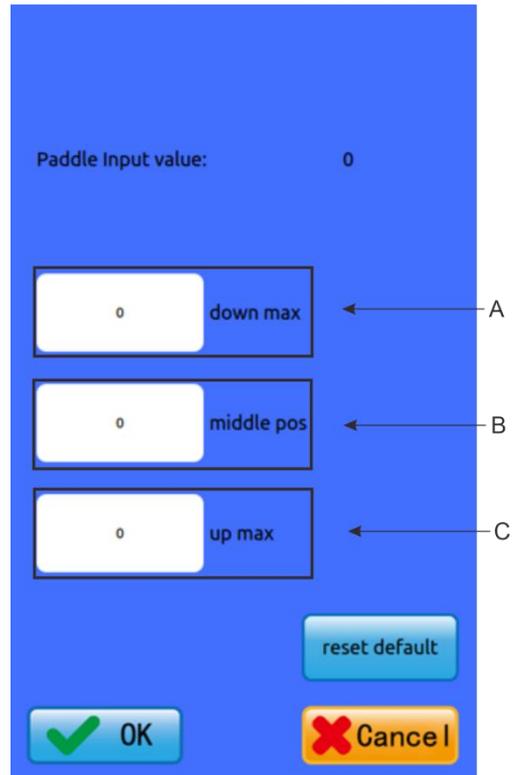
"  " button to save the current value

After the three values are correctly calibrated, press

"  " to exit the current interface and

return to the input test interface.

Clicked **reset default** button to reset value to the default values.



9.4 System Upgrade

System upgrade: Press the  button on the auxiliary setting interface to enter the system upgrade interface (as shown on the right), and the system can be upgraded through a U disk.

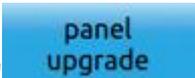
Note: The new files or folders required during the upgrade must be placed in the main directory of the U disk, and cannot be placed in other subfolders, otherwise the files will not be found during the upgrade)

Panel upgrade: both the panel file and the qm folder exist in the main directory of the U disk

Note: (The translation files are stored in the qm folder. If this folder is missing, the interface display language will be confused after the upgrade)



1) **Panel upgrade:** Before the upgrade, you need to copy the new version of the program panel file and the qm folder to the main directory of the U disk, insert the U disk into the panel, and then enter through "Menu" --> "Auxiliary Settings" —> "System Upgrade" On the system upgrade interface, click the

 button to upgrade. After the upgrade is successful, the prompt "Success, please restart" will appear, just restart.

2) **Computer box upgrade:** copy the new version of the program nc.bin file to the main directory of the U disk before upgrading. Other operations are similar to panel upgrade.

Note: 430/438/1900/1903 model file is STNC430.BIN, 0806 model file is nc.bin

3) **Kernel upgrade:** The conprog.bin file of the new version of the program needs to be copied to the main directory of the U disk before the upgrade. Other operations are similar to panel upgrade.

4) **Upgrade of translation files:** Copy the qm folder of the new version of the program to the main directory of the U disk before upgrading. Other operations are similar to panel upgrade.

5) **Boot image upgrade:** Copy the LOGO.bin file of the new version of the program to the main directory of the U disk before upgrading. Other operations are similar to panel upgrade.

6) **Version information:** Check the old version information before upgrading.

Note: When copying the new file to the U disk, some computers do not display the .bin suffix name. You don't need to change it at this time, just copy it directly.

10 Error table

Trouble with the spindle motor

Error code	Reasons and treatment methods
E100	After the notification appears, if no grease is added (no cleaning operation is performed) and the sewing machine continues to be used for a period of time, this display will appear again. Add grease, and then perform cleaning operations.
E111	When the sewing machine is stopped, the parking position is incorrect. Turn off the power, and check whether the thread trimming device or the sewing machine motor is abnormal.
E112	Main motor error during sewing
E113	The needle bar is not in the upper stop position, turn the handwheel of the sewing machine until the error display disappears
E121	The thread trimming could not be completed. Turn off the power and check whether the blades of the fixed knife and movable knife are scratched or damaged.
E130	The main sewing motor stops abnormally or the synchronization display is defective. Turn off the power and rotate the pulley to check if the sewing machine is locked. Check whether the plugs of P11 on the main board of the power motor and 4P of the upper shaft motor are in good condition.
E131	The sync display is in poor contact. Cut off the power and confirm whether the plug of the P11 on the motor main board is in good condition.
E132	It is found that the main motor of the sewing machine is rotating abnormally and cut off the power supply. Check whether the plug of the main board P11 of the motor is in good condition.
E133	The stop position of the main sewing motor is defective. Cut off the power and confirm whether the plug of the P11 on the motor main board is in good condition.
E150	The main motor of the sewing machine is heating up abnormally or the temperature sensor is malfunctioning. Turn off the power and check the condition of the sewing machine motor. (If sewing data with short stitches (15 stitches) is repeated (short cycle), the upper shaft motor is overheated, and [E150] failure may occur.)

Problem in feeding

Error code	Reasons and treatment methods
E200	The origin of the X pulse motor cannot be detected. The X-direction position sensor is abnormal, or the X encoder is in poor contact.
E203	X motor current is too large. X motor failure or motor control circuit board failure.
E207	The X motor cannot move. X direction presser foot is stuck; X motor encoder or X motor malfunction;
E208	X motor is out of control. X motor encoder is malfunctioning.
E210	Y can't find the origin. The Y-direction position sensor is abnormal, or the X encoder is in poor contact.
E213	Y motor current is too large. Y motor failure or motor control circuit board failure.
E217	The Y motor cannot move. Y direction presser foot is stuck; Y motor encoder or X motor malfunction;
E218	Y motor is out of control. Y motor encoder is malfunctioning.

Trouble with the presser foot

Error code	Reasons and treatment methods
E300	The presser foot lifting motor cannot find the origin. The installation position of the motor is wrong, or the encoder of the presser foot lifting motor is in poor contact.
E303	The current of the presser foot lifting motor is too high. Motor failure or motor control circuit board failure.
E307	The presser foot lifting motor cannot move. The presser foot is stuck; the encoder or motor is faulty.
E308	The presser foot lifting motor is out of control. The motor encoder is malfunctioning.

Communication or memory failure

Error code	Reasons and treatment methods
E410	A communication error between the main board and the main board of the control board was detected. Cut off the power supply and plug it in again.
E420	No storage tool is inserted. Press the RESET button to eliminate the error.
E421	Unable to use due to incorrect data content, or no data. Press the RESET button to eliminate the error. Confirm whether the data of the style number is stored in the storage tool.
E422	An error occurred while reading the storage tool information. Press the RESET button to eliminate the error. Confirm the data in the storage tool.
E424	Insufficient space in the storage tool. Press the RESET button to eliminate the error. Use other storage tools.
E425	An error occurred while writing to the storage tool. Press the RESET button to eliminate the error. Please use the designated storage tool. Confirm whether writing is prohibited, or whether there is space.
E427	The pattern registered in the cycle program is deleted. Press the RESET button to eliminate the error. Re-register the cycle program and add styles.
E428	The pattern set in the program is deleted. Press the RESET button to eliminate the error. Reset the program and add patterns.
E440	The mainboard data storage is abnormal. Cut off the power supply, and reconnect the power supply.

Failure in data editing

Error code	Reasons and treatment methods
E500	After the enlargement setting is made, the sewing data exceeds the area that can be sewn. Press the RESET button to eliminate the error. Set the magnification or sewing area again.
E502	After the enlarged setting, the data pitch exceeds the maximum pitch of 12.7mm. Press the RESET button to eliminate the error. Set the magnification again.
E510	The program data is abnormal. Press the RESET button to eliminate the error. Re-read the program data from the storage tool, or re-enter the program data. (It is not possible to add tension code segment to the pattern in the format of heavy machine printing)
E581	The storage switch folder cannot be read correctly. The model before copying and the model after copying are incorrect. (The data of 438F may be read to 430F) Press the RESET button to eliminate the error. Please read the data of the same model.

Device failure

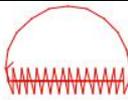
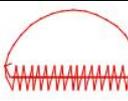
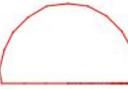
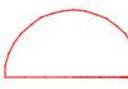
Error code	Reasons and treatment methods
E600	The noodle thread breaks. Press the RESET button to eliminate the error. After pressing the KEY_STEP_BACK key, move the presser foot to continue sewing.
E690	The thread clamp motor or the intermediate presser motor cannot find the origin. The motor installation position is wrong or the encoder is faulty.
E693	Overcurrent of thread grabbing motor or intermediate presser motor.
E697	The thread clamp motor or the intermediate presser motor cannot move. The motor is stuck, or the encoder is faulty.
E698	The thread grabbing motor or the intermediate presser motor is out of control. The motor encoder is faulty.
	Failure of the substrate
E700	The power supply voltage has risen abnormally. Turn off the power and check the input voltage.
E701	The driving voltage of the main motor of the sewing machine increases abnormally. Cut off the power and confirm the voltage
E705	The power supply voltage dropped abnormally. Turn off the power and check the input voltage.

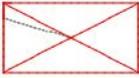
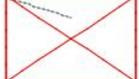
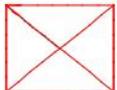
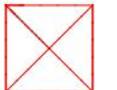
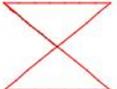
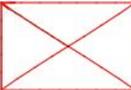
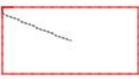
E710	The main sewing motor has detected an abnormal current. Turn off the power and check whether the sewing machine is abnormal.
E711	The pulse motor has detected an abnormal current. Turn off the power, and check whether the presser foot/button clamp is running abnormally.

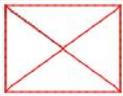
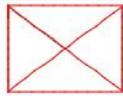
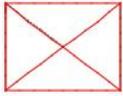
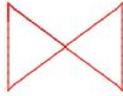
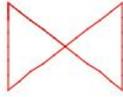
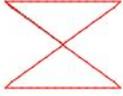
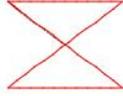
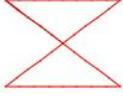
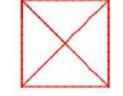
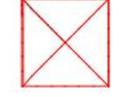
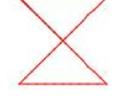
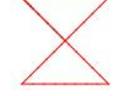
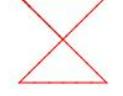
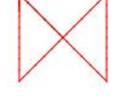
Internal error	E901 \E902 \E903 \E904 \E905 \E911 \E912 \E913 \E820 \E821 \E822 \E850 Check whether all ground wires in the chassis are reliably connected.
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1900Pattern list

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
1		24mm	3mm	2		10.5mm	2mm
3		16mm	2.4mm	4		24mm	3mm
5		10.4mm	2mm	6		16mm	2.4mm
7		10.4mm	2mm	8		16mm	2.4mm
9		24mm	3mm	10		24mm	3mm
11		6.4mm	2.4mm	12		6.3mm	2.4mm
13		6.4mm	2.4mm	14		8mm	2mm
15		8mm	2.2mm	16		8.3mm	2mm
17		10mm	0mm	18		10mm	0mm
19		25.2mm	0mm	20		24.8mm	0mm
21		25.2mm	0mm	22		35mm	0mm
23		4mm	20mm	24		4mm	20mm
25		4mm	20mm	26		4mm	20mm
27		0mm	20mm	28		0mm	10mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
29		0mm	20mm	30		0mm	20mm
31		10mm	7mm	32		12mm	7mm
33		10.2mm	6mm	34		12mm	6mm
35		7mm	10mm	36		7mm	10mm
37		24mm	3mm	38		8mm	2mm
39		11.8mm	12mm	40		12mm	12mm
41		2.4mm	20	42		2.4mm	25mm
43		2.4mm	25mm	44		2.4mm	30mm
45		2.4mm	30mm	46		2.4mm	30mm
47		8mm	8mm	48		8mm	7.9mm
49		8mm	8mm	50		8mm	8mm
51		40mm	30mm	52		5mm	5mm
53		16.6mm	2.4mm	54		8.1mm	25mm
55		8mm	20mm	56		8.2mm	30mm
57		8.1mm	25mm	58		8.1mm	30mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
59		8.1mm	25mm	60		10mm	30mm
61		38.4mm	20.1mm	62		28.8mm	20mm
63		19mm	20mm	64		9.4mm	11mm
65		20mm	20mm	66		20mm	20mm
67		18mm	18mm	68		18mm	18mm
69		18mm	13mm	70		18mm	13mm
71		30mm	20mm	72		28mm	20mm
73		25mm	20mm	74		20mm	20mm
75		25mm	20mm	76		25mm	20mm
77		15mm	15mm	78		25mm	16mm
79		15mm	15mm	80		24mm	18mm
81		24mm	20mm	82		25mm	16mm
83		25mm	25mm	84		35mm	25mm
85		40mm	20mm	86		40mm	30mm
87		40mm	30mm	88		40mm	30mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
89		40mm	30mm	90		40mm	30mm
91		40mm	30mm	92		40mm	30mm
93		40mm	30mm	94		40mm	30mm
95		40mm	30mm	96		40mm	30mm
97		40mm	30mm	98		30mm	30mm
99		30mm	30mm	100		30mm	30mm
101		30mm	30mm	102		30mm	30mm
103		30mm	30mm	104		30mm	30mm
105		30mm	30mm	106		30mm	30mm
107		30mm	25mm	108		30mm	25mm
109		30mm	25mm	110		30mm	30mm
111		30mm	30mm	112		30mm	30mm

1906Pattern list

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
1		8.0mm	5.0mm	2		10.0mm	6.0mm
3		8.2mm	10.1mm	4		9.0mm	20.0mm
5		9.0mm	22.0mm	6		9.0mm	24.0mm
7		9.0mm	26.0mm	8		9.0mm	28.0mm
9		9.0mm	30.0mm	10		9.0mm	32.0mm
11		9.0mm	34.0mm	12		9.0mm	35.0mm
13		9.0mm	37.0mm	14		9.0mm	39.0mm
15		9.0mm	41.0mm	16		9.0mm	43.0mm
17		9.0mm	45.0mm	18		9.0mm	47.0mm
19		9.0mm	49.0mm	20		9.0mm	20.0mm
21		9.0mm	22.0mm	22		9.0mm	24.0mm
23		9.0mm	26.0mm	24		9.0mm	28.0mm
25		9.0mm	30.0mm	26		9.0mm	32.0mm
27		9.0mm	34.0mm	28		9.0mm	36.0mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
29		9.0mm	38.0mm	30		9.0mm	40.0mm
31		9.0mm	42.0mm	32		9.0mm	44.0mm
33		9.0mm	46.0mm	34		9.0mm	48.0mm
35		9.0mm	50.0mm	36		9.0mm	20.0mm
37		9.0mm	22.0mm	38		9.0mm	24.0mm
39		9.0mm	26.0mm	40		9.0mm	28.0mm
41		9.0mm	30.0mm	42		9.0mm	32.0mm
43		9.0mm	34.0mm	44		9.0mm	36.0mm
45		9.0mm	38.0mm	46		9.0mm	40.0mm
47		9.0mm	42.0mm	48		9.0mm	44.0mm
49		9.0mm	46.0mm	50		9.0mm	48.0mm
51		9.0mm	50.0mm	52		9.0mm	20.0mm
53		9.0mm	22.0mm	54		9.0mm	24.0mm
55		9.0mm	26.0mm	56		9.0mm	28.0mm
57		9.0mm	30.0mm	58		9.0mm	32.0mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
59		9.0mm	34.0mm	60		9.0mm	42.0mm
61		9.0mm	46.0mm	62		9.0mm	48.0mm
63		9.0mm	50.0mm	64		9.0mm	20.0mm
65		9.0mm	22.0mm	66		9.0mm	24.0mm
67		9.0mm	26.0mm	68		9.0mm	28.0mm
69		9.0mm	30.0mm	70		9.0mm	32.0mm
71		9.0mm	34.0mm	72		9.0mm	36.0mm
73		9.0mm	38.0mm	74		9.0mm	40.0mm
75		9.0mm	42.0mm	76		9.0mm	44.0mm
77		9.0mm	46.0mm	78		9.0mm	48.0mm
79		9.0mm	50.0mm	80		9.0mm	20.0mm
81		9.0mm	22.0mm	82		9.0mm	24.0mm
83		9.0mm	26.0mm	84		9.0mm	28.0mm
85		9.0mm	30.0mm	86		9.0mm	32.0mm
87		9.0mm	34.0mm	88		9.0mm	36.0mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
89		9.0mm	38.0mm	90		9.0mm	40.0mm
91		9.0mm	42.0mm	92		9.0mm	46.0mm
93		9.0mm	48.0mm	94		9.0mm	48.0mm
95		9.0mm	50.0mm	96		9.0mm	20.0mm
97		9.0mm	22.0mm	98		9.0mm	24.0mm
99		9.0mm	26.0mm	100		9.0mm	28.0mm
101		9.0mm	30.0mm	102		9.0mm	30.0mm
103		9.0mm	34.0mm	104		9.0mm	36.0mm
105		9.0mm	38.0mm	106		9.0mm	40.0mm
107		9.0mm	42.0mm	108		9.0mm	44.4mm
109		9.0mm	46.0mm	110		9.0mm	48.0mm
111		9.0mm	50.0mm	112		9.0mm	20.0mm
113		9.0mm	22.0mm	114		9.0mm	24.0mm
115		9.0mm	26.0mm	116		9.0mm	28.0mm
117		9.0mm	30.0mm	118		9.0mm	32.0mm

No.	pattern	long (mm)	high (mm)	No	pattern	long (mm)	high (mm)
119		9.0mm	34.0mm	120		9.0mm	36.0mm
121		9.0mm	38.0mm	122		9.0mm	40.0mm
123		9.0mm	42.0mm	124		9.0mm	44.0mm
125		9.0mm	46.0mm	126		9.0mm	48.0mm
127		9.0mm	50.0mm	128		8.0mm	15.0mm
129		8.0mm	20.0mm	130		8.0mm	25.0mm
131		8.0mm	30.0mm	132		8.0mm	35.0mm
133		8.0mm	38.0mm	134		8.0mm	40.0mm
135		8.0mm	45.0mm	136		8.1mm	28.0mm

1903 Pattern list

The sewing patterns shown below have been pre-set. As long as the needle can pass through the buttonhole, any sewing pattern can be selected. For sewing patterns without overlock threads, trim the thread after sewing on one side, and then sew on the other side.

No.	Buttonhole number	pattern	Number of lines	Number of seams	Contacts	size (mm)	
						X	Y
1 • 34	4		6-6	—	18	3.4	3.4
2			8-8	—	18		
35			22				
3			10-10	—	26		
4			12-12	—	30		
5 • 36			6-6	—	23		
6 • 37			8-8	—	27		
7			10-10	—	31		
8			12-12	—	35		
9			6-6	—	35		
38			18				
10 • 39			8-8	—	22		
11			10-10	—	26		
12 • 40			6-6	—	19		
13 • 41			8-8	—	23		
14			10-10	—	27		
15 • 42			6-6	—	24		
16 • 43		8-8	—	28			
17		10-10	—	32			

No.	Buttonhole number	pattern	Number of lines	Number of seams	Contacts	size (mm)	
						X	Y
18 • 44	2		6	—	11	3.4	0
19 • 45			8	—	13		
20			10	—	15		
21			12	—	17		
22			16	—	21		
23 • 46		4		6	—		
24			10	—	15		
25			12	—	17		
26 • 47	4			6-6	—	18	3.4
27			10-10	—	26		
28 • 48			6-6	—	23		
29			10-10	—	31		
30 • 49	3		5-5-5	—	20	3.0	2.5
31			8-8-8	—	29		
32 • 50			5-5-5	—	20		
33			8-8-8	—	29		

No.	Buttonhole number	pattern	Number of lines	Number of seams	Contacts	size (mm)				
						X	Y			
101	2		6	—	12	3.4	0			
154			6	—	12					
102			8	—	14					
※1 155			8	—	14					
103			10	—	16					
104			12	—	18					
※2 105			16	—	22					
※2 106			20	—	26					
※1 156				6	—			11	0	3.4
※3 107				6	—			12		
※3 123	10	—		16						
※3 108	12	—		18						
※3 109	5-5-5	—		21						
※3 124		7-7-7	—	27	2.6	2.4				
※3 125			5-5-5	—			21			
※3 126			7-7-7	—			27			
157				6-6			1	18	3.4	3.4
110	6-6			1	19					
※1 158	8-8	1		22						
111	8-8	1		23						
112	8-8	3		25						
113	10-10	1		27						
127	12-12	1		31						

※1 is used for small hole buttons.

※2 Before using the program, please check that the buttonhole diameter is not less than 2mm. ※3 The button cannot be used to lift the spring.

No.	Buttonhole number	pattern	Number of lines	Number of seams	Contacts	size (mm)		
						X	Y	
※4 114	4		6-6	0	24	3.4	3.4	
※5 136			6-6	0	24			
※4 128			8-8	0	28			
※5 137			8-8	0	28			
※4 115			10-10	0	32			
※5 138			10-10	0	32			
※4 129			12-12	0	36			
※5 139			12-12	0	36			
159				6-5	1			17
116				6-5	1			18
※1 160		8-7		1	21			
117		8-7		1	22			
130		10-9		1	26			
161				6-6	1			18
118				6-6	1			19
※1 162			8-8	1	22			
119			8-8	1	23			
※1 163			10-10	1	26			
131			10-10	1	27			
145			12-12	1	31			
※4 120				6-6	0			24
※5 140				6-6	0			24
※4 132				8-8	0			28
※5 141		8-8		0	28			
※4 133		10-10		0	32			
※5 142		10-10		0	32			

※1 Used for small hole buttons.

※4 After one side is sewn, the button clamp is raised and the thread is pulled out. In order to carry out the sewing to the end, before the sewing on the other side starts, Please continue to depress the foot switch; or after finishing sewing on one side, please depress the foot switch again.

※5 After finishing sewing on one side, the button clamp does not rise but only pulls the thread, and continues sewing on the other side.

No.	Buttonhole number	pattern	Number of lines	Number of seams	Contacts	size (mm)		
						X	Y	
※1 164	4		6-6	1	18	3.4	3.4	
※3 121			6-6	1	19			
※3 134			10-10	1	27			
※3※4 122			6-6	0	24			
※3※5 143			6-6	0	24			
135			10-10	0	32			
※3※5 144			10-10	0	32			
146			6-7	1	19			
147			8-9	1	23	3.4		3.4
148			10-11	1	27			
149			12-13	1	31			

※1 Used for small hole buttons.

※3 The button cannot be used to lift the spring.

※4 After finishing sewing on one side, the button clamp will rise and the thread will be pulled out. In order to carry out the sewing to the end, please continue to depress the foot switch before sewing on the other side; or after finishing sewing on one side, please depress the foot switch again.

※5 After finishing sewing on one side, the button clamp does not rise but only pulls the thread, and continues sewing on the other side.

用于带柄钮扣					
No.	pattern	Number of lines	Contacts	size (mm)	
				X	Y
150		6	12	3.4	0
151		8	14		
152		10	16		
153		12	18		

Be careful when creating additional sewing patterns

If sewing data with short stitches (15 stitches or less) is repeated (short cycle operation), the upper shaft motor overheating error [E150] may be caused.