20X Tacking Machine-Touching Panel E
2025-09

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1. Overview

1.1 Overview

This series of industrial sewing machines is equipped with a computer control system. The spindle motor operates using advanced AC servo control technology, featuring high torque, high efficiency, stable speed, and low noise. Diversified operation panel designs meet the diverse integration requirements of different customers. The system adopts a German-style structural design for convenient and quick installation and maintenance. System control software can be upgraded via remote communication, allowing users to continuously improve product performance.

1.2 Technical Parameter Table

No.	Model / Item	20X
1	Purpose	Tacking and button attaching
2	Sewing range	X (left/right) 40mm × Y (front/back) 30mm
3	Highest sewing speed	Maximum 3000rpm (double hook is 2700rpm)
4	Minimum sewing accuracy	0.1mm
5	Feed	Indirect feeding (pulse motor 2-axis drive mode)
6	Needle rod travel	41.2mm
7	Machine needle	DP × 5 # 14 (DP × 5 # 11 (F, M), (DP × 17 # 21 thick material))
8	Presser foot lifting mode	Pulse motor
9	Presser foot ascent	Standard 14mm, maximum 17mm (when lifting the needle in reverse)
10	Number of standard patterns	50/100
11	Wiping mode	Pulse motor presser foot lifting linkage
12	Needle thread tension	Electronic tension disco
13	Spinning shuttle	Semi-rotating standard hook or semi-rotating double hook
14	Refueling mode	Rotating part: Micro refueling
15	Engine oil	Sewing-machine oil
16	Lubricating grease	Lubricating grease for sewing machines
17	Data memory	USB flash disk
18	Zoom in/out function	The X and Y directions are independently scaled by 20%~200% (in 1% units)

19	Zoom in/out mode	Adjustment method for stitch length and needle spacing
20	Sewing speed limitation	400-3500rpm (100rpm unit)
21	Pattern selection function	Pattern number designation mode (1-200)
22	Bobbin thread count	Up/Down mode (0-9999)
23	Mechanical motor	500W small AC servo motor (direct driving mode)
24	Overall dimensions	263mm×153mm×212mm
25	Control box weight	Approximately 10 kg
26	Power consumption	600W
27	Temperature range for use	0℃～45℃
28	Use humidity range	35%-85% (no condensation)
29	Power supply voltage	AC 220V ± 10%; 50/60Hz

Please reduce the maximum sewing speed according to the sewing conditions

The implementation standard of the product: QCYXDK0004—2016 Computer Control System for Industrial Sewing Machines.

1.3 Precautions for safe use

Installation

Control box

Please follow instructions for correct installation

Accessories

If installing additional accessories, turn off the power and unplug the power cord first.

Power cord

Do not apply pressure or excessively twist the power cord.

Keep the power cord at least 25mm away from moving parts.

Before connecting the control box to power, verify that the voltage matches the marked voltage on the box and confirm the location before supplying power. If using a power transformer, ensure compatibility before supplying power. Ensure the push-button power switch on the sewing machine is set to [OFF].

Grounding

To prevent electric shock caused by noise interference or leakage, ensure the ground wire on the power cord is properly grounded.

Accessories

If connecting electrical accessories, ensure you connect them at the designated locations as instructed.

Removal

Before removing the control box, always turn off the power and unplug the power cord.

When unplugging, do not just pull the cord; firmly grasp the power plug to unplug.

The control box contains dangerous high-voltage electricity; if opening the cover, turn off the power and wait for more than 5 minutes before proceeding.

Maintenance, Inspection, and Repair

Ensure that repair and maintenance are conducted by trained technicians.
When replacing the needle and shuttle, always turn off the power.
Always use genuine parts.

Other safety measures

Do not touch rotating or moving parts while the sewing machine is operating (especially the needle and belt accessories), and keep your hair away from them to avoid hazards.
Do not drop the control device, and do not insert any objects into its gaps.
Do not operate the machine without all protective covers in place.
If the control device is damaged or malfunctioning, consult an experienced technician for adjustment, inspection, or repair. Do not operate it until the fault is resolved.
Kindly refrain from modifying or altering the control device on your own.

Disposal

Dispose of as general industrial waste.

Warning signs and danger signs

Incorrect actions may pose danger; the severity is indicated by the markings described below.

Warning	Incorrect actions may cause serious injury

Attention	Incorrect actions may result in injury or damage to property.

The symbols are explained as follows.

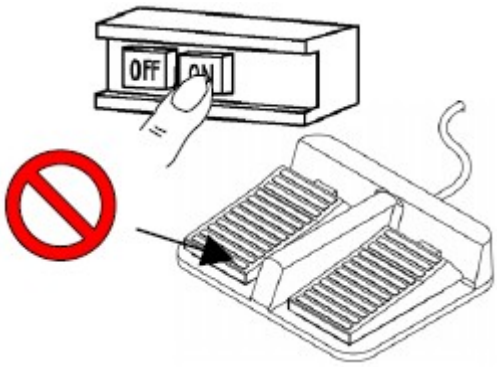
	Follow the instructions carefully.
	Be cautious of high temperatures.
	Do not perform this action under any circumstances.

	Be cautious of high-voltage electricity (electric shock hazard).
	Ensure the ground wire is properly connected.

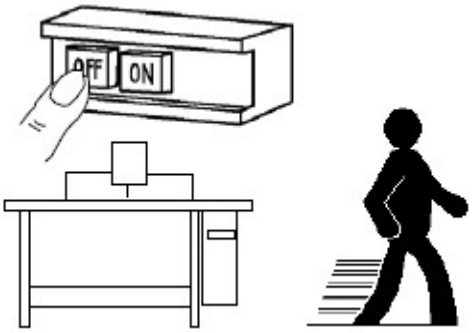
1.4 Precautions for use

Warning

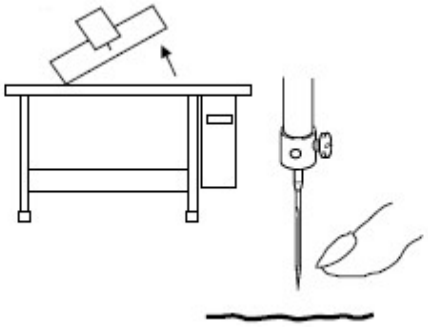
1. When pressing the switch [ON] with your hands, keep your foot off the pedal.



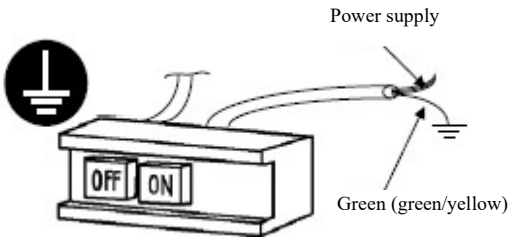
2. Always turn off the power when leaving your workstation.



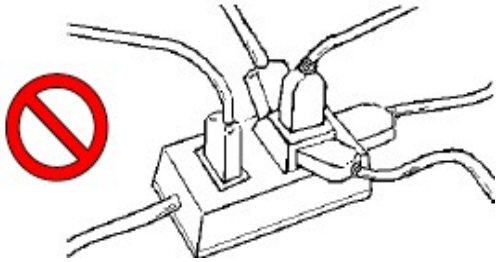
3. If tilting the head sideways, replacing the needle, or threading the upper thread, always turn off the power.



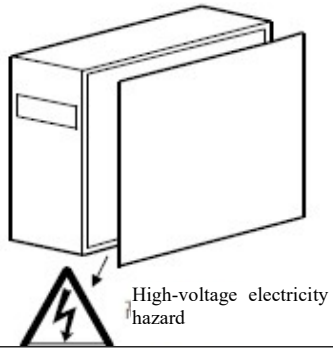
4. Ensure the grounding wire is properly grounded.



5. Avoid using household multi-outlet extension cords.



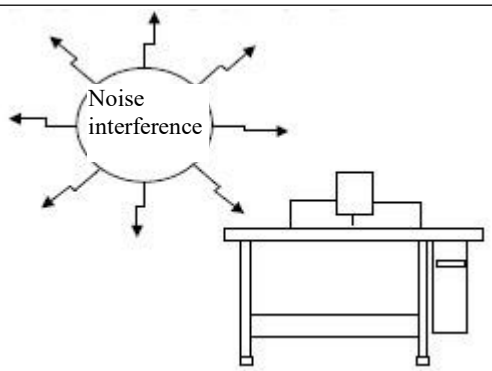
6. Hazardous high-voltage electricity is present inside the control box. After powering off, wait for 5 minutes before opening the control box cover.

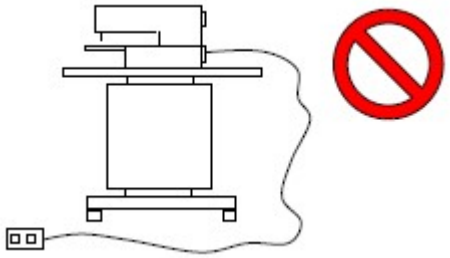


7. After motor replacement, ensure to set the spindle motor installation angle in accordance with the instructions in this document.

8. Keep away from machines that generate high-frequency noise interference.

9. When connecting ancillary devices via external signal sockets, keep the cable length as short as possible. Long cables may cause malfunctions; use isolated cables.

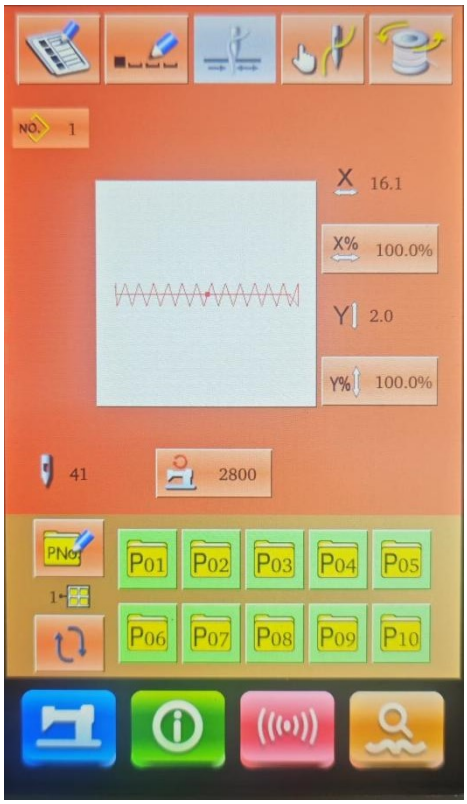




10. If the fuse blows, first identify and eliminate the cause before replacing it with a fuse of the same capacity.

1.5 Standardization

The function buttons adopt industry recognized graphic symbols, which are in international language and can be recognized by users from all countries.



1.6 Operation

This system's touching panel operation panel employs industry-leading touch operation technology. Its user-friendly interface and convenient control bring revolutionary changes to users' daily operations. Users can use fingers or other objects to touch the screen and complete corresponding operations. During use, users shall avoid touching the screen with sharp objects to prevent permanent damage to the touching panel.

Function buttons include the ready button, information button, mode button, and communication button, among others. For detailed operation methods, refer to the instructions in subsequent sections.

Warning

During use, users shall avoid touching the screen with sharp objects to prevent permanent damage to the touching panel.

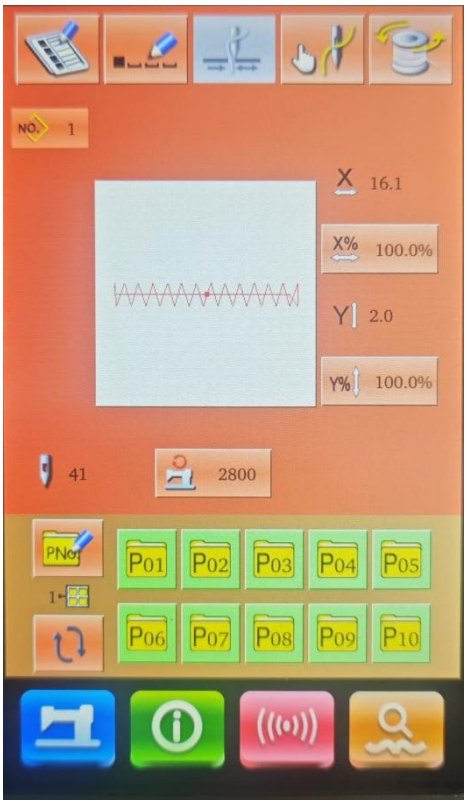
2 Operating instructions

2.1 General buttons

The general operation buttons used across all interfaces of this system are as follows:

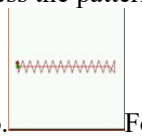
No.	Icon	Function
1		Cancel button → Exit the current setup interface. In the data modification interface, cancel the modified data.
2		OK button → Confirm the modified data.
3		Plus button → Button to increase the value.
4		Minus button → Button to decrease the value.
5		Reset button → Resolve an abnormality.
6		Enter button → Display the numeric keypad for data input.
7		Ready button → Switch between the data input interface and the sewing interface.
8		Information button → Switch between the data input interface and the information interface.
9		Communication button → Switch between the data input interface and the communication interface.
10		Mode button → Switch between the data input interface and various detailed setting interfaces.

2.2 Basic operations



① **Turn on the power switch.**
After turning on the power, the data input interface is displayed.

② **Select the desired sewing pattern No.**
The selected pattern No. will be displayed in the current interface. Press the pattern display button to



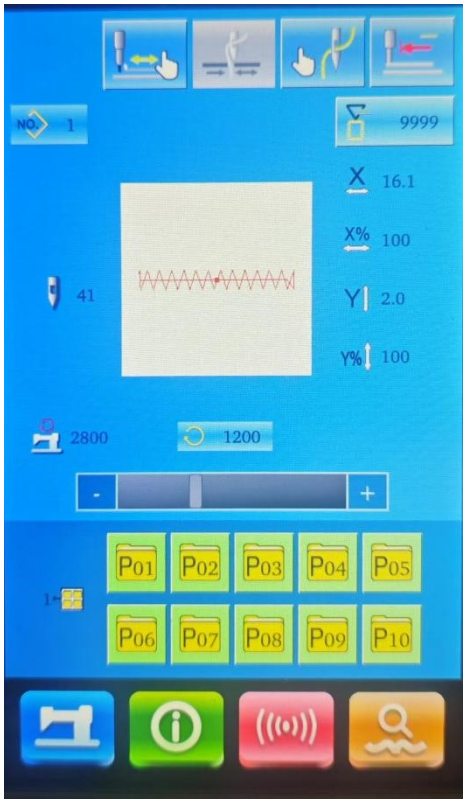
select the pattern No.For detailed operations on pattern selection, see [Section 2.7 Pattern Selection] for details.

③ **Set to a sewing-ready state**

After pressing the ready button  , the LCD display background color changes to blue, indicating the machine is ready for sewing.

④ **Start sewing**

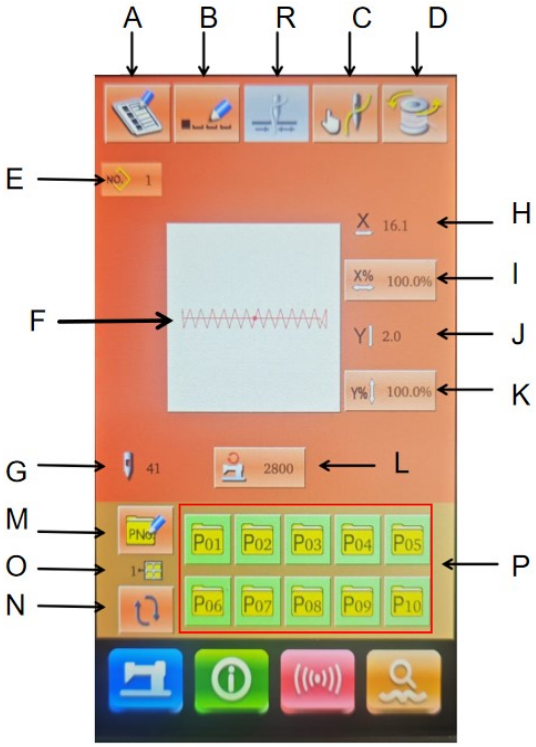
Position the sewing product on the presser foot, engage the pedal to lower the presser foot, and start the sewing machine to begin sewing.



2.3 Basic pattern operation

(1) Sewing data input interface

The data input interface is as shown in the right figure. For detailed function descriptions, refer to the function button description table.



Function description:

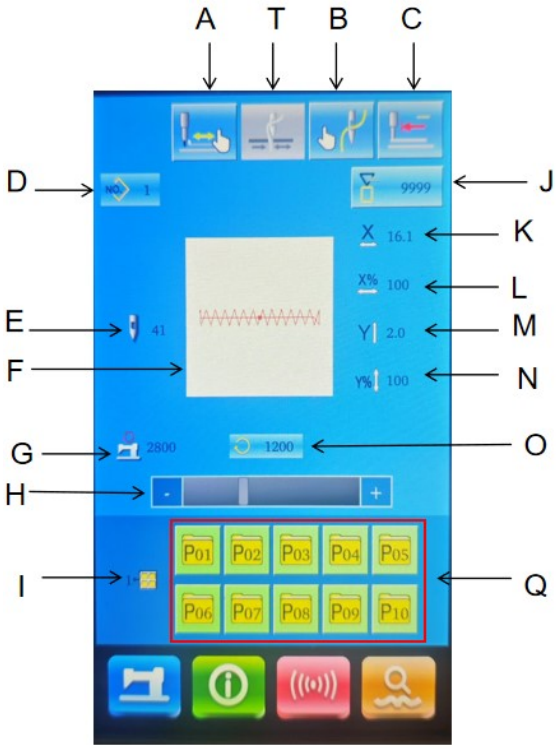
No.	Function	Content
A	Pattern registration	Up to 999 standard patterns can be registered.
B	Pattern naming	A maximum of 14 characters can be entered.
R	Thread capture button (Displayed based on actual machine configuration)	Select whether thread capture is enabled or disabled. Affected by U35 parameters.
C	Threading	Lower the presser foot, and the presser foot lowering screen will be displayed. To raise the presser foot, press the button on the presser foot lowering screen.
D	Winding	Forward pedal engagement is required before winding the thread.
E	Pattern number display	Displays the currently selected pattern number.
F	Sewing shape	The sewing shape of the current pattern is displayed on the button.

	selection	Pressing it enters the pattern selection interface.
G	Pattern stitch count display	Displays the stitch count for the currently selected pattern.

H	X actual size value display	Displays the X-direction actual size value of the currently selected pattern.
I	X zoom in/out ratio setting	The X-direction zoom in/out ratio of the currently selected pattern is displayed on the button. Pressing it leads to the setting interface.
J	Y actual size value display	Displays the Y-direction actual size value of the currently selected pattern.
K	Y zoom in/out ratio setting	The Y-direction zoom in/out ratio for the currently selected pattern is displayed on the button. Press to enter the settings interface.
L	Maximum speed limit	Displays the maximum speed limit value, which can be set upon pressing.
M	Quick pattern registration (abbreviated as P pattern)	Used for registering P patterns; up to 50 patterns can be registered.
O	P pattern folder number display	A Displays the current P pattern folder number.
N	P pattern folder selection	Sequentially switch between P pattern folder numbers.
P	P pattern selection	Displays the registered P patterns. Press to enter the P pattern data input interface. This button is not displayed in the initial state.

(2) Sewing interface

Press  to enter the sewing interface as shown in the right figure. For detailed function descriptions, please refer to the function button description table.



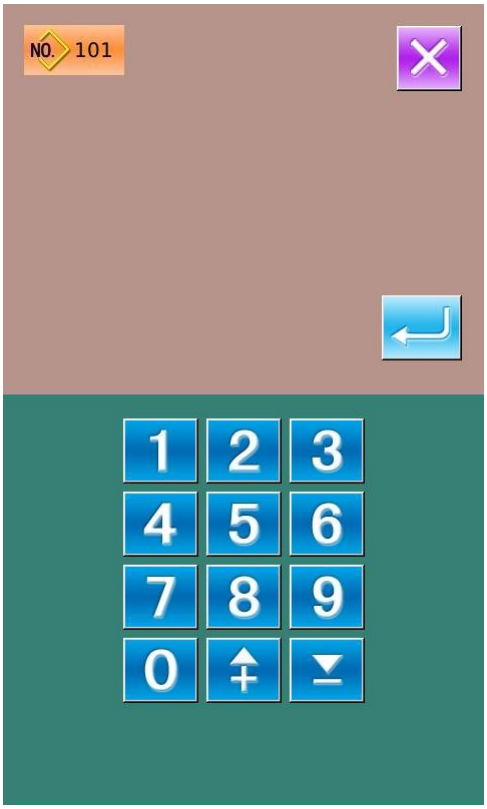
Function description:

No.	Function	Content
A	Trial stitching	Press to enter the trial stitching interface and determine the pattern shape.
T	Thread capture button (This button is displayed based on the actual mechanical configuration)	Select whether thread capture is enabled or disabled. Affected by U35 parameters.
B	Presser foot down button	Lower the presser foot, and the presser foot lowering screen will be displayed. To raise the presser foot, press the  button shown on the presser foot lowering screen.
C	Origin reset	Press to return the presser foot to the starting point of sewing and raise the presser foot.
D	Pattern number display	Displays the currently selected pattern number.
E	Pattern stitch count display	Displays the stitch count for the currently selected pattern.

F	Pattern shape display	Displays the currently selected pattern shape.
G	Maximum speed limit display	Displays the maximum speed limit value.
H	Sewing speed settings	The sewing speed can be adjusted.
I I	P pattern folder number display	Displays the current P pattern folder number.
J	Counter settings	Press to select the counter type and set the current count value.  : Sewing counter  : Piece counter
K	X actual size value display	Displays the X-direction actual size value of the currently selected pattern.
L	X zoom in/out ratio setting	Displays the X-direction zoom in/out ratio for the currently selected pattern.
M	Y actual size value display	Displays the Y-direction actual size value of the currently selected pattern.
N	Y zoom in/out ratio setting	Displays the Y-direction zoom in/out ratio for the currently selected pattern.
O	Sewing speed display	Displays the current sewing speed.
Q	P pattern selection	Displays the registered P pattern. Press to enter the P pattern sewing interface. This button is not displayed in the initial state.

2.4 Pattern registration

A maximum of 999 standard patterns can be registered. Press to enter the pattern registration interface (as shown in the right figure):



① Enter the pattern number

Use the numeric buttons to select the desir pattern number. If you enter an existing patte number, the registered sewing shape a related data will be displayed at the top of t interface. Use the and buttons retrieve unregistered pattern numbers.

② Register a new pattern

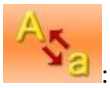
After confirming the pattern number, press to copy the previously displayed pattern data to the newly registered pattern. Upon completion, you will return to the new pattern data input interface.

Upon completion, you will return to the new pattern data input interface. If you enter an existing pattern number, the system will prompt you whether to overwrite the existing pattern.

Note: Fundamental patterns cannot be overwritten.

2.5 Pattern naming

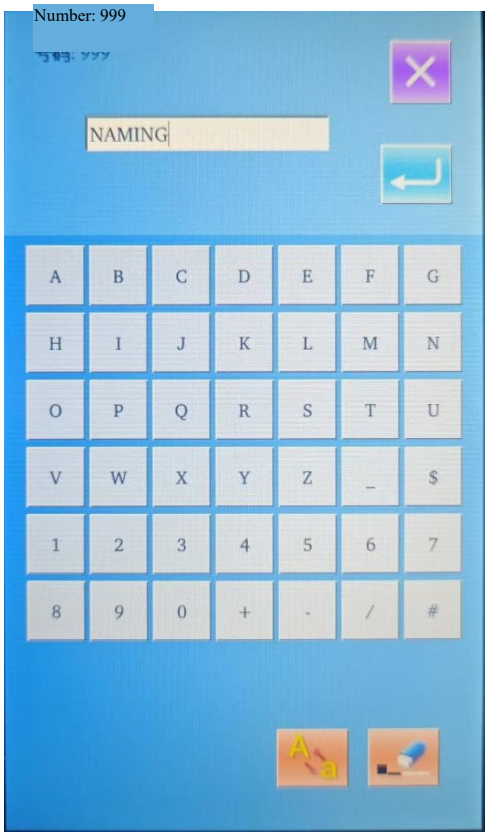
Press  to access the pattern naming interface (as shown in the right figure), allowing for a maximum of 14 characters.

 : Case switch button for alphabets

 : Clear button

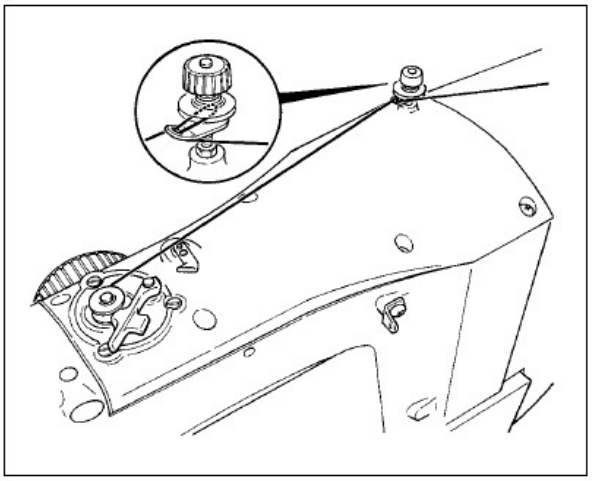
Select the desired characters for input and press  to finalize the pattern naming operation.

You can determine the character position by moving the cursor, and use the erase button to delete the character at the specified position.



2.6 Bobbin winding

① Install the bobbin by inserting it into the winding axis. As shown in the right figure.



② Display the bobbin thread winding interface

Within the data input interface, pressing the winding button  displays the winding interface (as shown in the right figure).

③ Initiate winding

Upon depressing the start pedal, the sewing machine begins to operate and commences winding the bobbin thread.

④ Cease operation of the sewing machine

After pressing the stop button  , the sewing machine ceases movement and reverts to normal mode. Additionally, pressing the pedal again during bobbin thread winding stops the sewing machine in winding mode. Pressing the start pedal again resumes bobbin thread winding, which is useful when winding multiple bobbins.

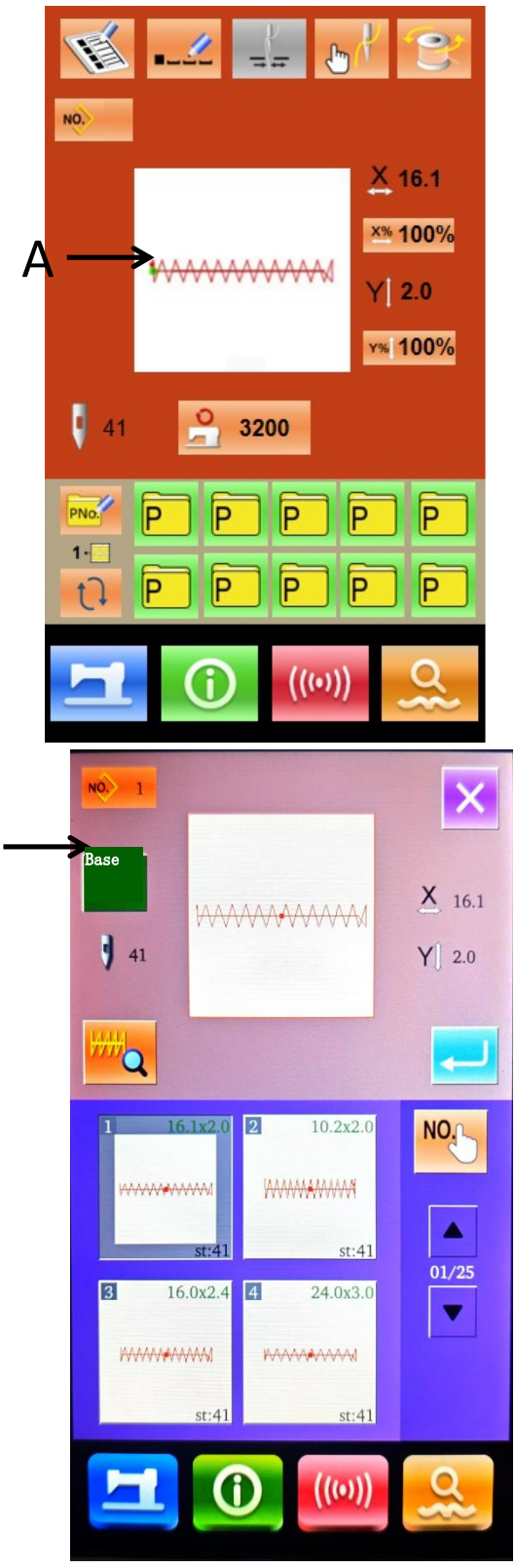
Note: Winding action will not commence immediately after power-up or after switching to host input.

Please set one pattern, press the ready button  and the sewing screen will be displayed.

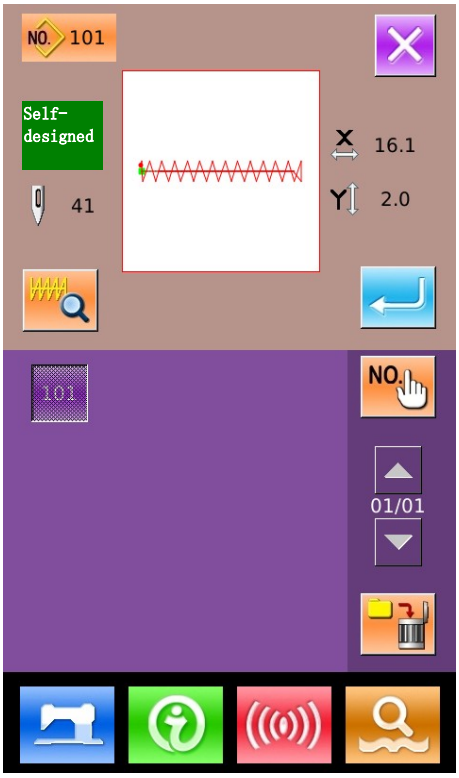
2.7 Pattern selection

① Enter the pattern selection interface

In the data input interface (as shown in the right figure), click on Sewing Shape A to enter the pattern selection interface.



The top of the pattern selection interface shows the sewing shape of the currently selected pattern, while the bottom displays the registered pattern numbers.

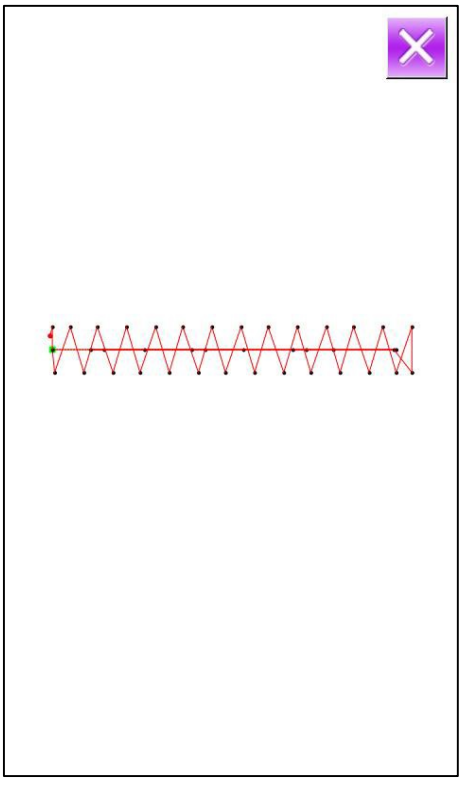


: Pattern preview : Input number to query pattern: pattern delete

Click the button; when common patterns exist, it toggles between basic patterns and user patterns.

② Select the pattern

When the current pattern is a basic pattern, 4 pattern numbers can be displayed per page; for self-designed patterns, 20 pattern numbers can be displayed per page. For basic patterns, each pattern number displays a simple diagram and the X and Y ranges; for self-designed patterns, only the pattern number is displayed. When a registered pattern number is selected, the selected pattern content is displayed above. Press to complete the pattern selection operation.



③ Pattern query

Press the button to open the pattern query interface, where you can directly input the pattern number using numeric buttons.

④ Pattern deletion

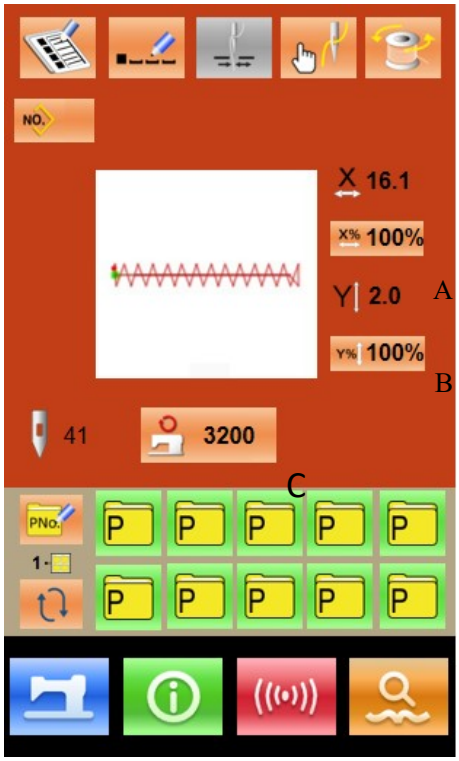
Select a registered pattern and press to delete it, but patterns registered to P cannot be deleted.

Note: Patterns are categorized into basic and common patterns: basic patterns are factory presets and cannot be deleted; common patterns are created, copied, or imported via USB flash disk by the user and can be deleted and modified.

⑤ Pattern preview

Press the  button to preview the current pattern shape in full screen. (Background color is white)

2.8 Sewing data setting



① Enter the sewing data setting interface

In the data input interface, pressing A, B, and C respectively enters the zoom ratio setting and speed limit setting interfaces.

	Item	Input range	Initial value
A	X-direction enlargement and	1.0~400.0%	100.0%
B	Y-direction enlargement and	1.0~400.0%	100.0%
C	Maximum speed limit	400~3200rpm (upper limit varies by model)	2800rpm

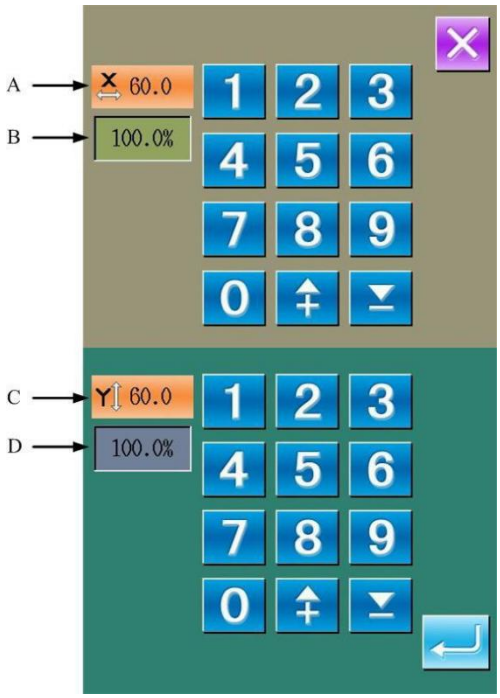
Note 1: Parameter U64 can be toggled to select between zoom in/out ratio or actual dimension value settings.

Note 2: The maximum input range and initial value of the maximum speed limit are affected by Parameter U01

.

② Zoom ratio setting

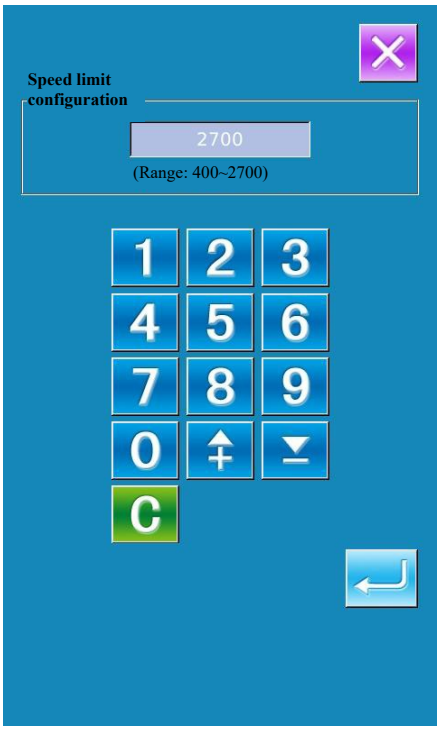
The image on the right shows the zoom in/out ratio setting interface, with the top section for X-direction settings and the bottom section for Y-direction settings. A: Actual value display for X direction B: Zoom in/out ratio display for X direction C: Actual value display for Y direction D: Magnification/reduction ratio display for Y direction



Enter the desired value using the numeric keypad 0~9 or the ± buttons. The entered digit is inserted at the first position of the displayed value, and previously entered digits shift right one by one. Press the OK button to complete the operation and return to the data input interface.

③ Maximum speed limit setting

The operation is the same as above.



2.9 P pattern registration

① Enter the P pattern registration interface

In the data input interface, press [PNo.] to enter the P Pattern Registration Interface, as shown in the figure on the right.

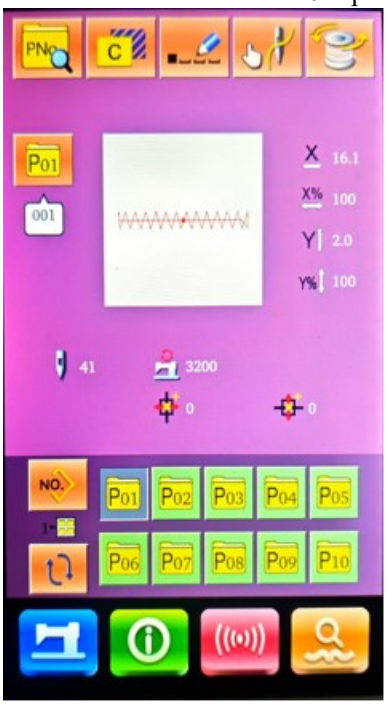
② Enter the P pattern number

Use the numeric keypad 0 ~ 9 or the buttons to enter the desired pattern number. If a pattern number that has already been registered is entered, the registered sewing shape and related data will be displayed at the top of the interface, and in this case, a new pattern cannot be registered.

③ Select a folder number

P pattern numbers can be registered in up to 5 folders, each folder can store a maximum of 10 P patterns.

The folder selection button allows sequential selection.



④ Confirm the pattern number

Press the OK button to complete the P pattern registration operation and return to the P pattern data input interface.

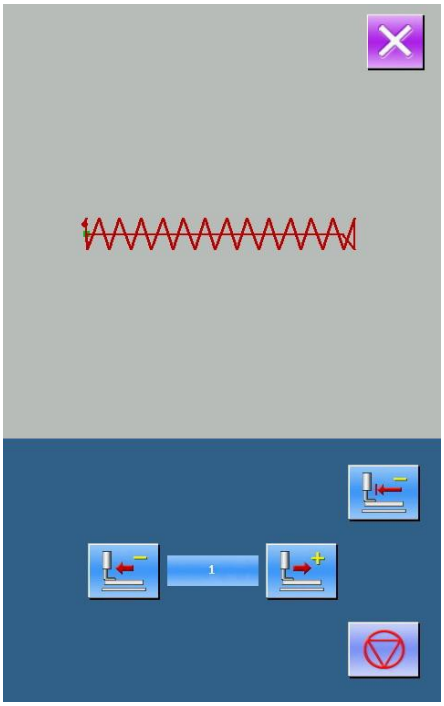
2.10 Trial stitching operation

① Display the sewing interface

In the data input interface, press the ready button, causing the LCD display background color to turn blue, indicating entry into the Sewing Interface.

② Display the trial stitching interface

In the sewing interface, press the button to enter the trial stitching interface (as shown in the right figure):



Return to origin

: Presser foot retreats

foot advances

stop

③ Start trial stitching

Step on the foot switch to lower the presser foot, and use the presser foot back button and presser foot forward button to define the shape. After pressing the button continuously for a period, the presser foot continues to move after releasing the button. Press the button to stop. After pressing the return to origin button , the needle returns to origin and returns to the sewing interface.

④ End trial stitching

Press the cancel button to exit the trial stitching interface and return to the sewing interface. If the pattern shape is not at the sewing start position or the sewing end position, you can confirm and commence sewing midway by pressing the foot switch. If you want to exit, press the origin reset button to close the elevated screen, display the sewing screen, and return to the start sewing position.

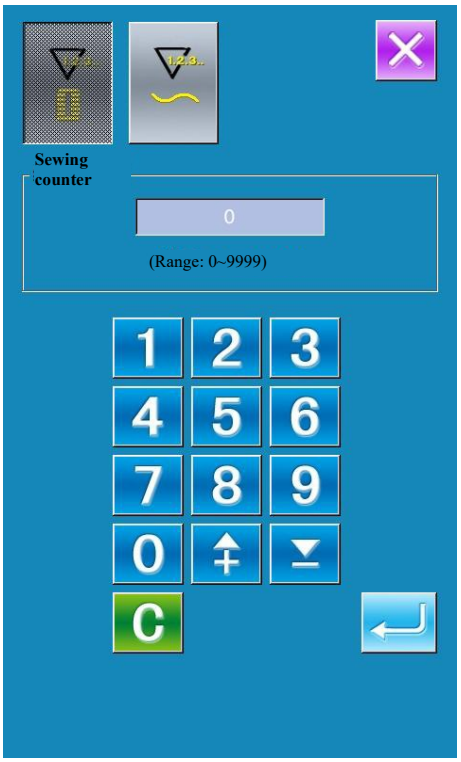
2.11 Counter operation

① Display counter interface

In the sewing interface, after pressing   , the counter setting interface is displayed.

 Manufactured Counter Type

 Parts Counter Type



② **Select counter type and set count value**

By selecting  and  , you can set the counter type and its current count value.

2.12 Emergency stop

Select the pause mode by setting U31 parameters: Three options are available: Invalid, pause button on the operation panel, and external switch.
When the pause button on the operation panel is selected, the pause button  is displayed on the sewing screen.

Resolve the exception

Pressing the pause button during sewing can stop the sewing machine. At this time, the abnormal screen is displayed, notifying that the stop switch is pressed. At this time, pressing the reset button  is abnormal.

② Perform tangent

Press the tangent button  to perform tangent and enter the step setting interface.

Note: When parameter U97 is set to automatic thread trimming after pause, it directly enters the step setting.

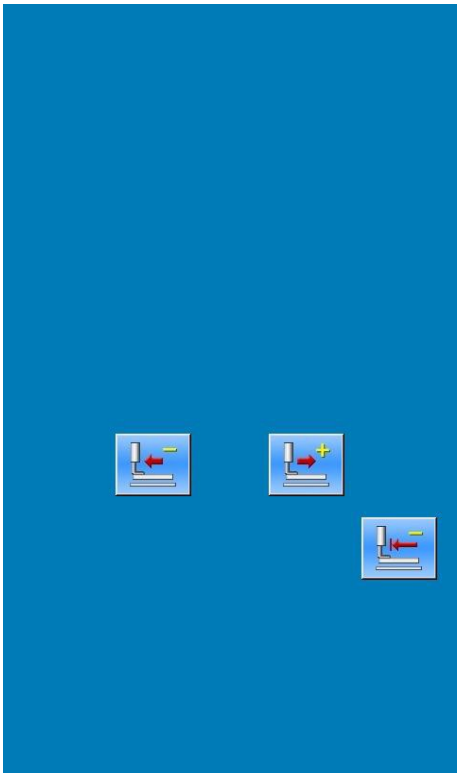
② Perform step settings and adjust the presser foot to the re-sewing position

Press the tangent button  to enter the step setting interface.  : Reverse feeding

 : Forward feeding

 : Origin reset

Press  or  to move the presser foot to the re-sewing position.



③ **Resume sewing after pressing the foot pedal, restart sewing.**

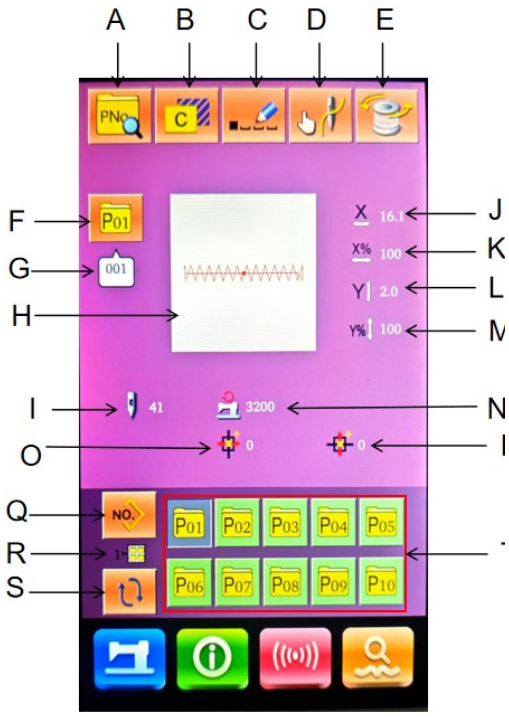
3 Quick (P) pattern operation

3.1 P pattern data input

The quick pattern, abbreviated as P pattern, consists of a standard pattern and associated sewing parameters (X-direction zoom ratio, Y-direction zoom ratio, speed limit, etc.).When using a P pattern, it is unnecessary to set the associated parameters each time.

The P pattern data input interface is as shown in the right figure.

A maximum of 50 P patterns can be registered.



Function description:

No.	Function	Content
A	P pattern editing	The content of the P pattern can be edited.
B	P pattern copy	You can copy the current P pattern content to an unused pattern number.
C	Pattern naming	A maximum of 14 characters can be entered.
D	Threading	Pressing it causes the outer presser foot to descend.
E	Winding	Press the ready button  once before winding.
F	P pattern number display	Displays the currently selected pattern number.
G	Sewing shape number display	Displays the standard pattern number referenced by the current P pattern.

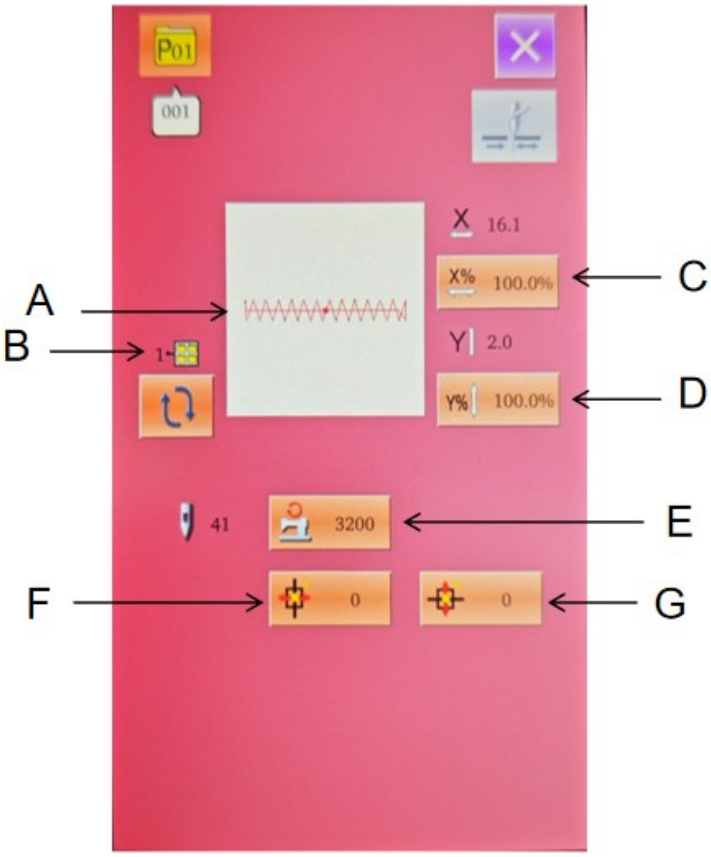
No.	Function	Content
H	Sewing shape selection	Displays the sewing shape of the current pattern.
I	Pattern stitch count display	Displays the stitch count for the currently selected pattern.
J	X actual size value display	Displays the X-direction actual size value of the currently selected pattern.
K	X zoom in/out ratio setting	Displays the X-direction zoom in/out ratio for the currently selected pattern.
L	Y actual size value display	Displays the Y-direction actual size value of the currently selected pattern.
M	Y zoom in/out ratio setting	Displays the Y-direction zoom in/out ratio for the currently selected pattern.
N	Maximum speed limit	Displays the maximum speed limit value.
O	X-direction offset display	Displays the X-direction offset of the currently selected pattern.
P	Y-direction offset display	Displays the Y-direction offset of the currently selected pattern.
Q	Return to normal pattern data input	Return to the normal pattern data input interface.
R	P pattern folder number display	Displays the current P pattern folder number.
S	P pattern folder selection	Sequentially switch between P pattern folder numbers.
T	P pattern selection	Registered P patterns are displayed.

3.2 P pattern editing

① Enter the P pattern editing interface

Press  to enter the P pattern editing interface (as shown in the right figure).

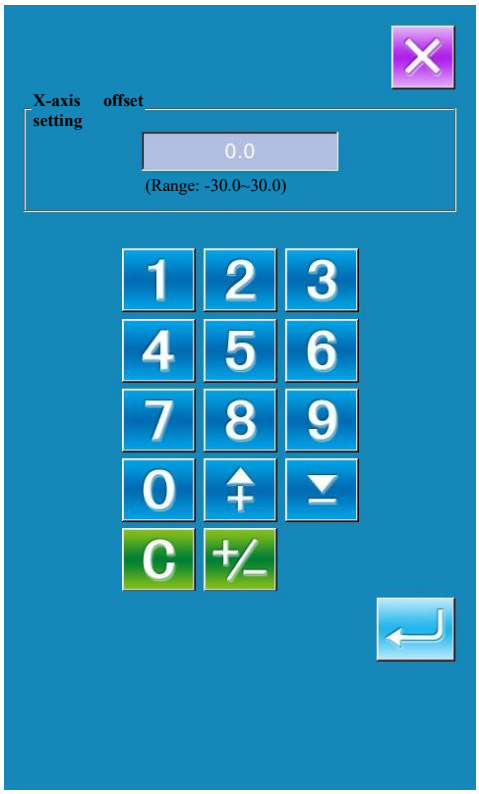
② Edit item data. Select the item you want to modify and set the value.



	Item	Input range	Initial value
A	Sewing shape		
B	Folder number	1~5	
C	X-direction enlargement and reduction ratio	1.0~400.0%	100.0%
D	Y-direction enlargement and reduction ratio	1.0~400.0%	100.0%
E	Maximum speed limit	400~3200rpm	3200rpm
F	X-direction offset	-30.0~30.0mm	0
G	Y-direction offset	-30.0~30.0mm	0

③ Confirm data changes

Taking the setting of the X-direction offset as an example, input the value using 0~9 numeric keypad or the and buttons, and press the OK button to finalize the operation.



: Represents a positive value;

: Represents a negative value.

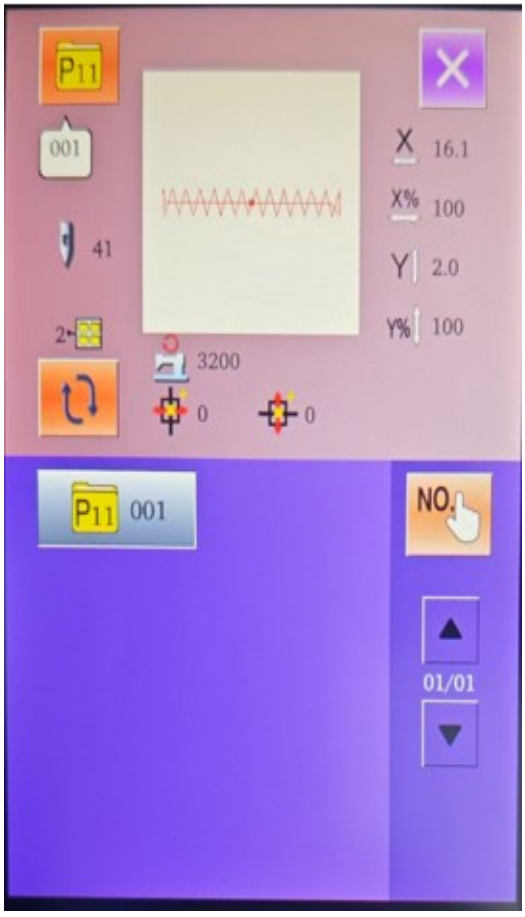
④ **Exit editing**

Press the exit button to close the P pattern editing interface and return to the data input interface.

3.3 P pattern copy

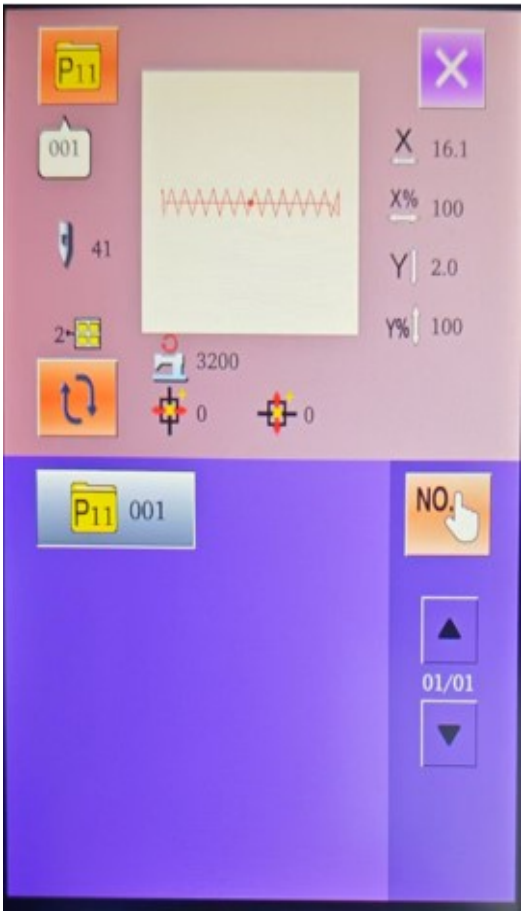
① Select the pattern to be copied

Press C to enter the P pattern copy interface (as shown in the right figure). Select the pattern number to be copied from the registered patterns and press NO.



② Enter the newly registered pattern number

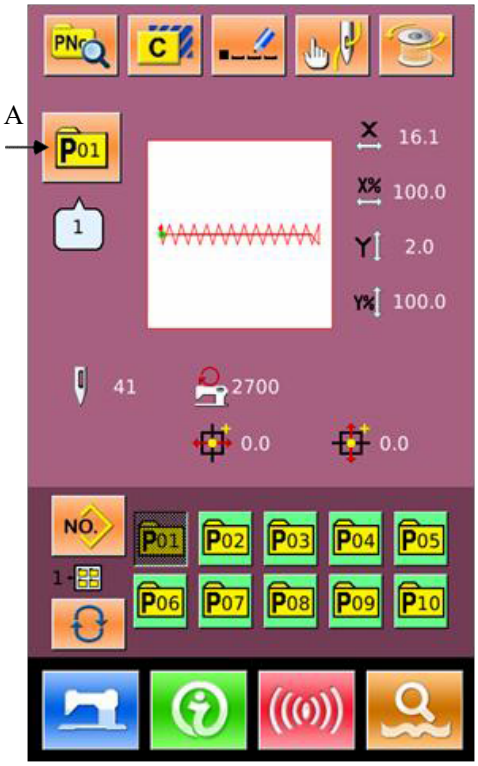
The copied pattern is displayed at the top of the interface. Use the numeric buttons to select an unregistered pattern number. Registered pattern numbers cannot be registered again. The folder selection button  can be used to select the folder for saving. Press the OK button  to complete the pattern copy operation and return to the P pattern copy interface.



3.4 P pattern selection

① Enter the P pattern selection interface

As shown in the right figure, press icon A to enter the P pattern selection interface.



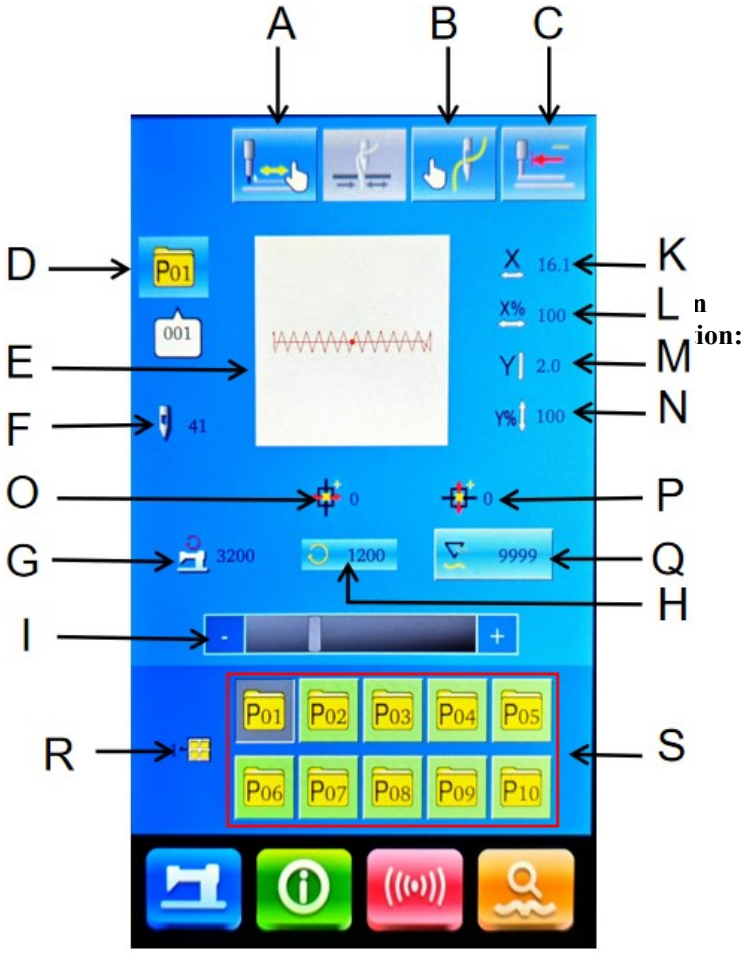
② Select the pattern number. The top of the interface displays the current pattern information. When you press the folder selection button  to switch to folder number not displayed, all registered P patterns can be shown.

③ Confirm the pattern selection

The operation is the same as standard pattern selection. Press the OK button  to finish selection.

3.5 P pattern sewing

In the P pattern data input interface, press  to enter the sewing interface (as shown in the right figure).



No.	Function	Content
A	Trial stitching	Press to enter the trial stitching interface and determine the pattern shape.
B	Threading	Pressing it causes the outer presser foot to descend.
C	Origin reset	Press the rear presser foot to return to the sewing start point.

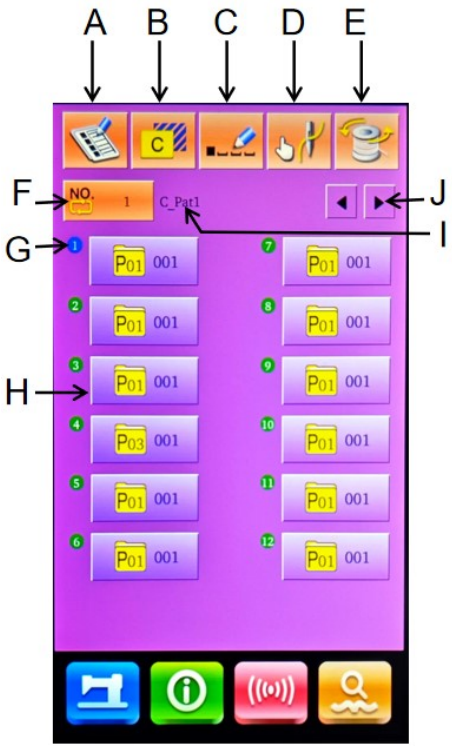
D	P pattern number display	Displays the currently selected pattern number.
E	Sewing shape number display	Displays the standard pattern number referenced by the current P pattern.
F	Pattern stitch count display	Displays the stitch count for the currently selected pattern.
G	Maximum speed limit display	Displays the maximum speed limit value.
H	Sewing speed display	Displays the current sewing speed.
I	Sewing speed settings	The sewing speed can be adjusted.
K	X actual size value display	Displays the X-direction actual size value of the currently selected pattern.
L	X zoom in/out ratio setting	Displays the X-direction zoom in/out ratio for the currently selected pattern.
M	Y actual size value display	Displays the Y-direction actual size value of the currently selected pattern.
N	Y zoom in/out ratio setting	Displays the Y-direction zoom in/out ratio for the currently selected pattern.
O	X-direction offset display	Displays the X-direction offset of the currently selected pattern.
P	Y-direction offset display	Displays the Y-direction offset of the currently selected pattern.
Q	Counter settings	Press to select the counter type and set the current count value.  : Sewing counter  : Piece counter
R	P pattern folder number display	Displays the current P pattern folder number.
S	P pattern selection	Registered P patterns are displayed.

4 Combination (C) pattern operation

4.1 C pattern data input

The combined pattern, referred to as C pattern, consists of a group of P patterns. Each C pattern group can input up to 50 sub-patterns. A total of up to 50 sets of C patterns can be registered.

Refer to section [8.8 Change Sewing Type] to enter the combination pattern data input interface, as shown in the right figure.

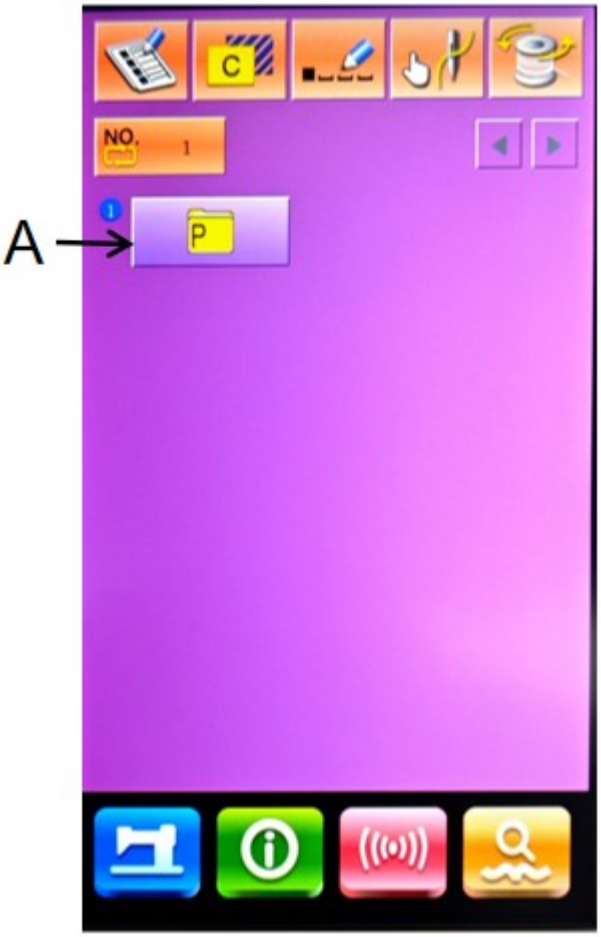


Function description:

No.	Function	Content
A	C pattern registration	Register a new combination pattern.
B	C pattern copy	You can copy the current C pattern content to an empty pattern number.
C	Pattern naming	A maximum of 14 characters can be entered.
D	Threading	Pressing it causes the outer presser foot to descend.
E	Winding	Press the ready button  once before winding.
F	C pattern number selection	The currently selected pattern number is displayed on the button. Press it to enter the C pattern selection interface.

No.	Function	Content
G	Sewing order display	Displays the sewing order of the currently selected pattern, with the blue display indicating the starting sewing pattern.
H	C pattern selection	Press to enter the C pattern editing interface, where you can choose to input a P pattern.
I	Page turning button	A maximum of 30 C patterns can be registered, with up to 6 patterns displayed per page.
J	C pattern name	Displays the C pattern name.

4.2 C pattern editing

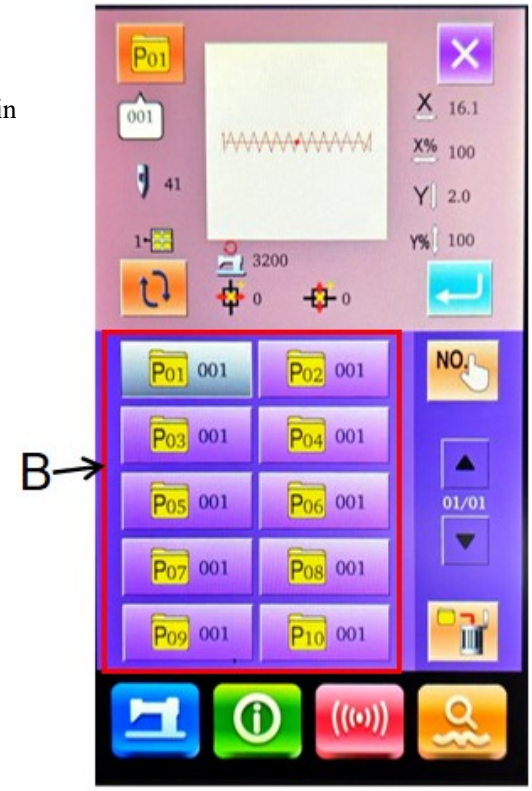


① Enter the C pattern editing interface

In the C pattern data input interface, press A to enter the C pattern editing interface. Initially, no P pattern is registered as a sewing pattern since the first pattern is displayed as a blank folder.

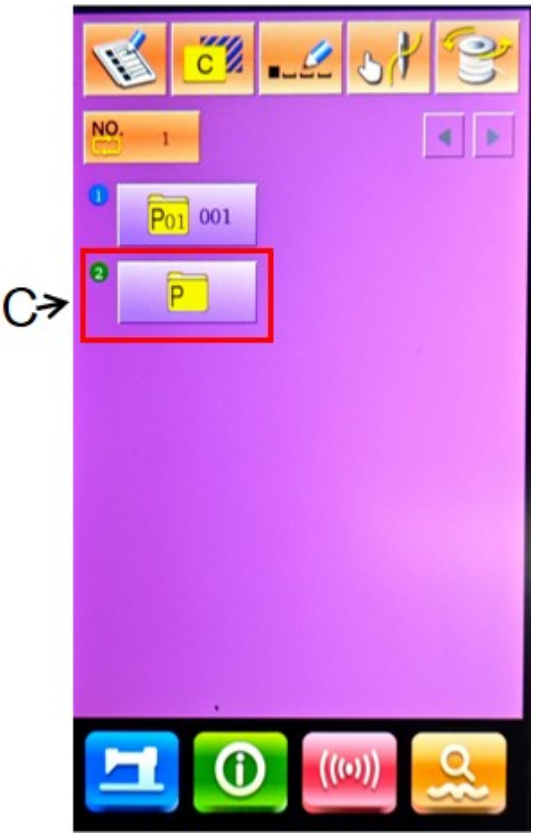
② Select a pattern

The image on the right is the C pattern editing in Select the P pattern B you wish to register, then press the OK button to finalize the selection.

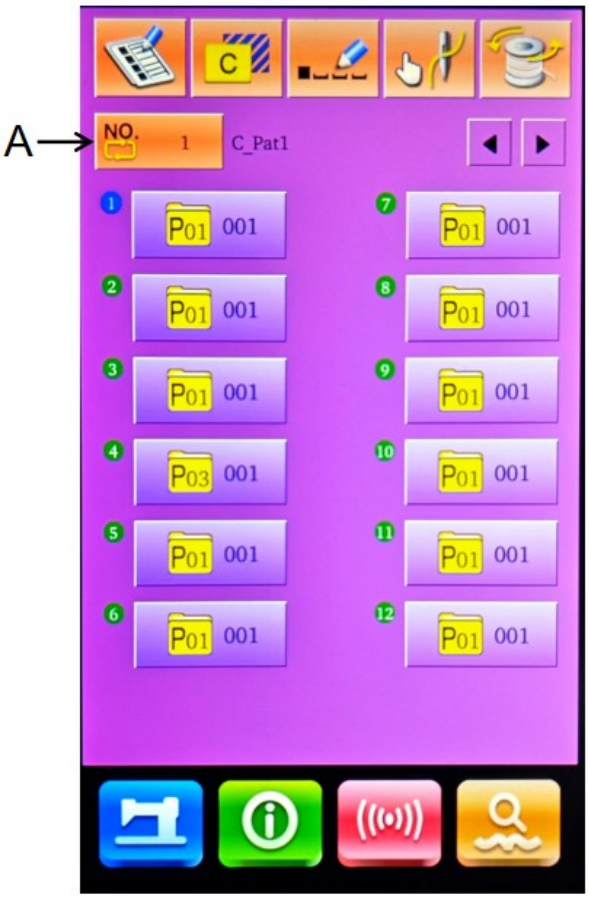


③ Repeatedly register the remaining patterns

Once the first pattern is registered, the second pattern selection button C is displayed. The procedure remains the same for further patterns, allowing for repeated registration of remaining patterns.



4.3 C pattern selection



① Enter the C pattern selection interface

As shown in the right figure, press icon A to enter the C pattern selection interface.

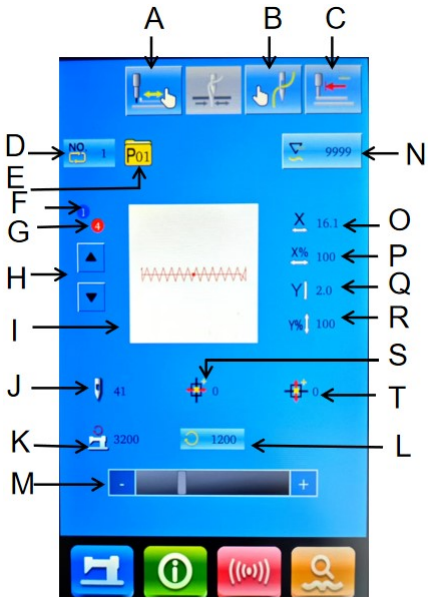
② Select C pattern number

The image on the right is the C pattern selection interface. After pressing the B button, you can cycle through the P sub-pattern data under the current C pattern.

Confirm the desired C pattern number by selecting button C, and press the OK button  to finalize selection.

4.4 C pattern sewing

Within the C pattern data input interface, press  to enter the sewing interface (as shown in the right figure).



Function description:

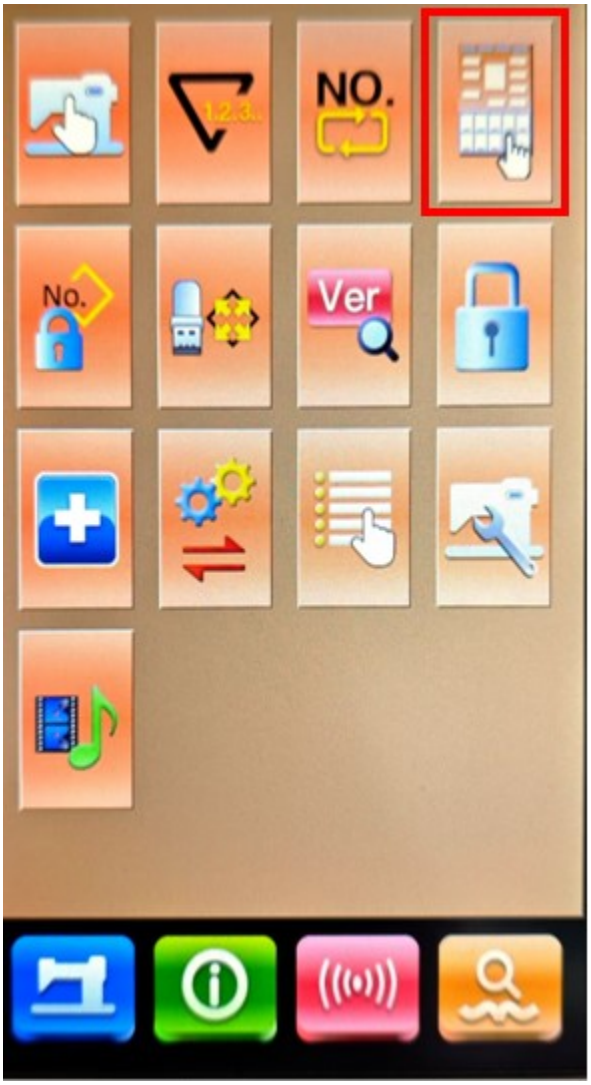
No.	Function	Content
A	Trial stitching	Press to enter the trial stitching interface and determine the pattern shape.
B	Threading	Pressing it causes the outer presser foot to descend.
C	Origin reset	Press the rear presser foot to return to the sewing start point.
D	C pattern number display	Displays the currently selected C pattern number.
E	Sewing shape number display	Displays the sub-pattern number registered under the current C pattern.
F	Sewing order display	Display the sewing sequence number in the current sewing pattern
G	Display total registration count	Displays the total number of sub-patterns registered in the current C pattern

No.	Function	Content
H	Sewing sequence forward/backward button	You can select the next/previous sewing pattern.
I	Pattern shape display	Displays the shape currently registered for sewing.
J	Pattern stitch count display	Displays the number of stitches in the current sewing registration shape.
K	Maximum speed limit display	Displays the maximum speed limit value of the current sewing registration shape.
L	Sewing speed display	Displays the current sewing speed.
M	Sewing speed settings	You can adjust the sewing speed by sliding.
N	Counter settings	Press to select the counter type and set the current count value.  : Sewing counter  : Piece counter
O	X actual size value display	Displays the actual dimension of the current sewing registration shape along the X-axis.
P	X zoom in/out ratio setting	Displays the zoom in/out ratio along the X-axis for the current sewing registration shape.
Q	Y actual size value display	Displays the actual dimension of the current sewing registration shape along the Y-axis.
R	Y zoom in/out ratio setting	Displays the zoom in/out ratio along the Y-axis for the current sewing registration shape.
S	X-direction offset display	Displays the offset along the X-axis for the current sewing registration shape.
T	Y-direction offset display	Displays the offset along the Y-axis for the current sewing registration shape.

5 Pattern editing

5.1 Entering the pattern editing mode

Press  to toggle between the data input interface and mode selection interface (as shown in the right figure), where detailed settings and editing operations can be performed. For detailed operations and settings in the mode selection interface, refer to [8 Mode and Parameter Settings].



Press  and  to toggle.

 Mode  : Editing mode

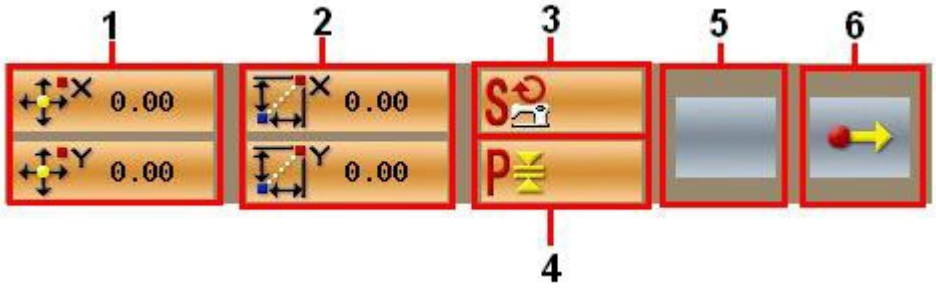
Select the editing mode icon and press the button again to exit the mode selection interface. The system prompts whether to enter the pattern editing interface.

Press to enter the standard pattern editing interface, as shown in the right figure:

Function description:

No.	Function	Content
A	Read pattern	Display pattern reading interface
B	Write pattern	Display pattern writing interface
C	Needle drop point query	You can quickly query the needle drop point; when editing patterns, you can directly input sewing point coordinates
D	Needle lifting	Return the needle to the parking position
E	Middle presser foot lift and lower	Raise or lower the middle presser foot
F	Current needle position information	This section displays the current needle position information
G	Edit function code list	Display all available editing functions; see [Editing Function List] for details
H	Information display	Display detailed information of the currently edited pattern
I	Display settings	Wide-angle and needle drop point display settings are available
J	Trial stitching	Trial stitching can be performed on the currently edited pattern
K	Forward and reverse feeding	Move one stitch from the current needle position (forward  ; backward )
L	Origin reset	Return the current needle position to the origin
M	Function buttons	Functions on each button can be directly accessed
		1  Send
		2  Stitch
		3  Through stitch
		4  Line
		5  Exclude mechanical control commands

No.	Function	Content
		6 Element deletion
		7 Modify sewing speed range
		8 Delete the currently edited pattern
N	Function shortcut buttons	By function selection and setting (function code 112), required functions can be assigned to buttons as function shortcut buttons. Once a function is assigned, its icon is displayed on the corresponding button
O	Pattern display area	Displays the pattern.



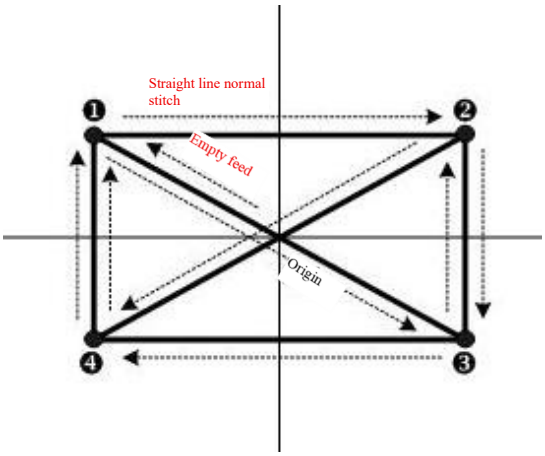
No.	Item	Content
1	Absolute coordinate	Indicates the absolute coordinates from the origin of the current needle position.
2	Relative coordinate	Indicates the relative coordinates of the current needle position.
3	Speed	Indicates the sewing speed or idle feed speed at the current point.
4	Interval	Indicates the current element sewing stitch length.(After reading the zoom in/out, the value before zoom in/out is displayed.)
5	Element type	Indicates the current element type. When sewing data, the icon of the element type (empty feed line by curve) is displayed. In the case of a machine control command, the icon indicating the type of the machine control command (such as thread trimming) is displayed.
		Indicates the type of needle drop position.
		Pattern starting point, indicating the starting position (origin) of the pattern.

6	Needle drop type	 Element midway, indicating a midway point within an element (i.e., not a vertex nor an element terminal).

No.	Item	Content
		Vertex, indicating the vertex of the polyline.
		Element terminal, indicating the terminal position of the element.
		Pattern terminal, indicating the final position of the pattern.

5.2 Pattern editing

Use the pattern editing function to input the following pattern.



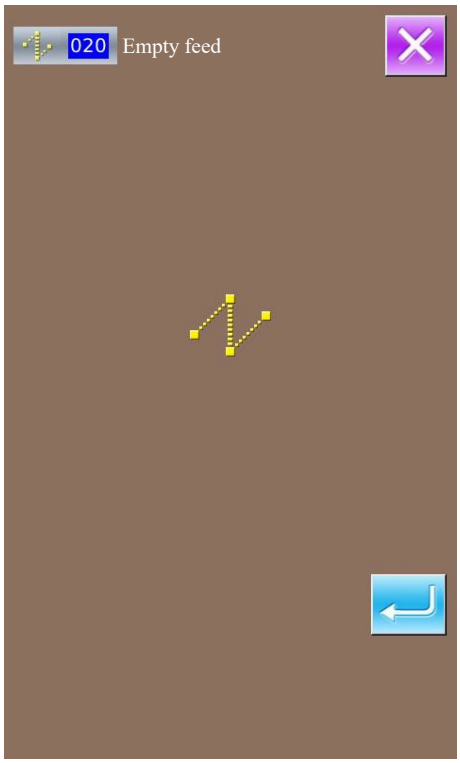
Input point:

	X (mm)	Y (mm)
	-40.00	25.00
	40.00	25.00
	40.00	-25.00
	-4000	-25.00

Input order: as shown by the dotted arrow in the left figure.

Empty feed input

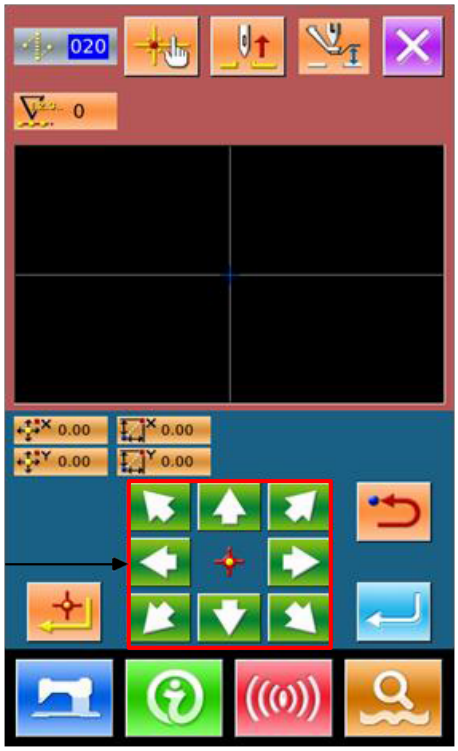
In the standard interface of pattern editing, press the empty feed button  , the empty feed setting interface is displayed: Note: You can also directly select 020: Empty feed from the function code list to enter this interface.

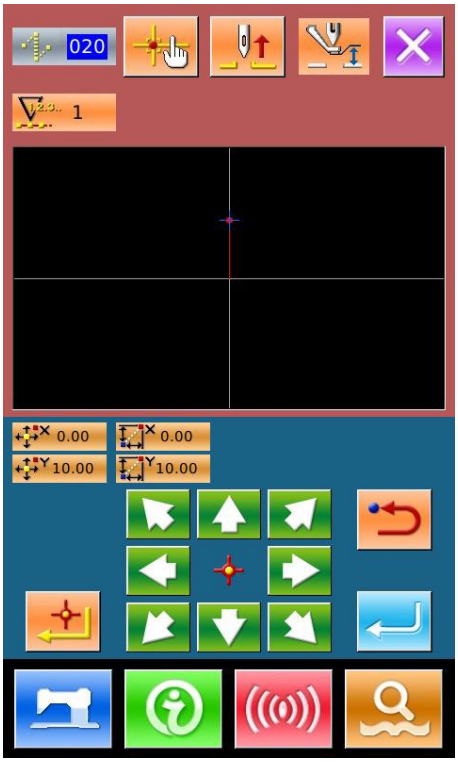


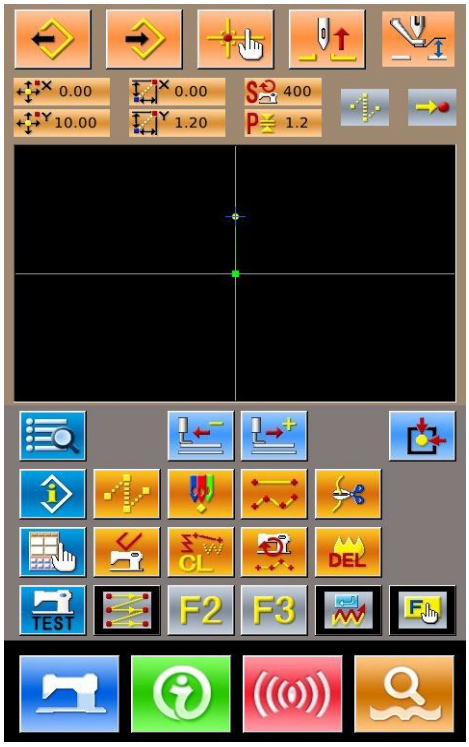
After pressing the confirm button  , the empty feed position designation interface is displayed:

In the empty feed position specification interface, use the direction movement buttons ——>A, move the cursor (needle position) to (0, 10), press the  button to confirm, and then press the  to save the setting, return to the standard interface of pattern editing and display the empty feed stitch:

A

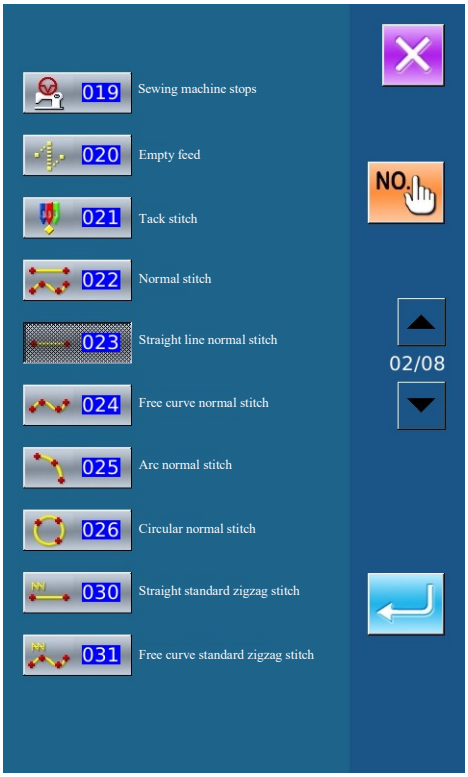


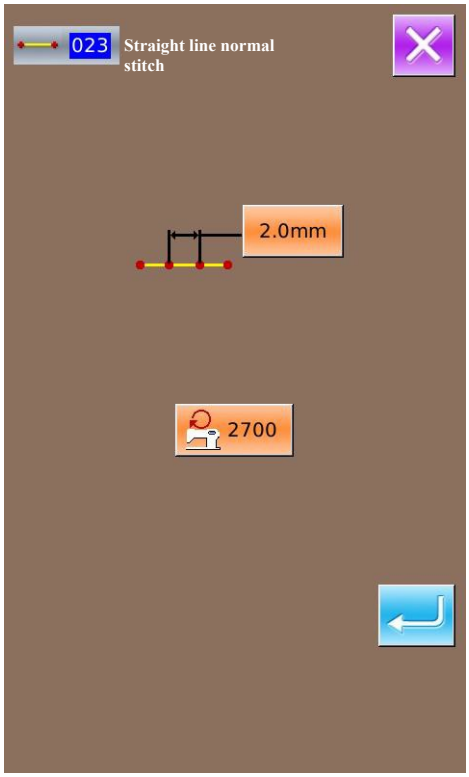




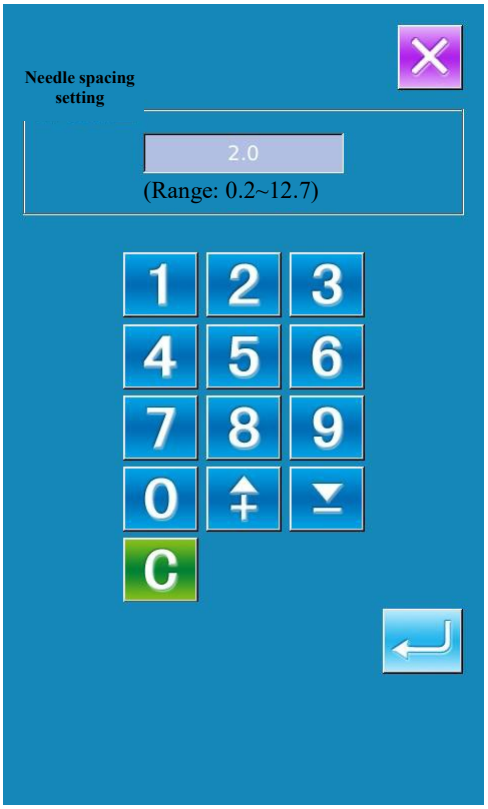
Input of straight line normal stitch

In the function code list, select "023 Straight Line Normal Stitch", then press the confirm button  to enter the straight line normal stitch setting interface:





In the straight line normal stitch setting interface, press the stitch length setting button 2.0mm to enter the stitch length setting interface, as shown in the right figure.

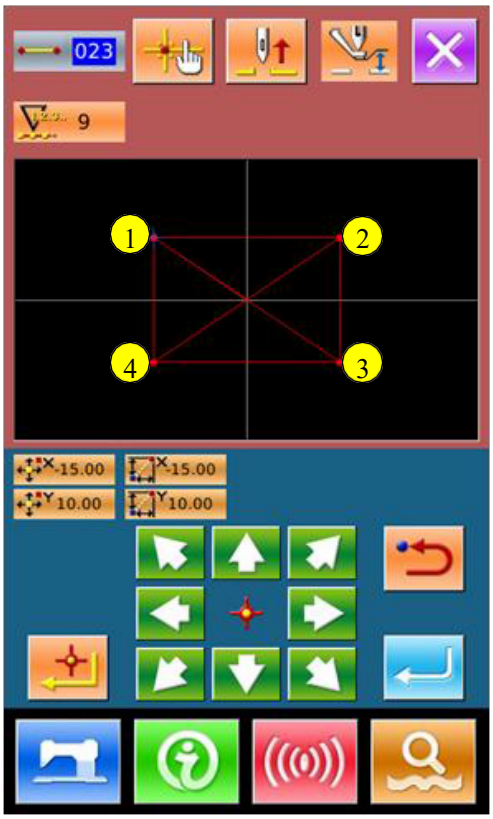


Press the 3 and 0 numeric buttons in sequence to change the stitch length to 3.0, then press the confirm button to save and return to the straight line normal stitch setting interface.

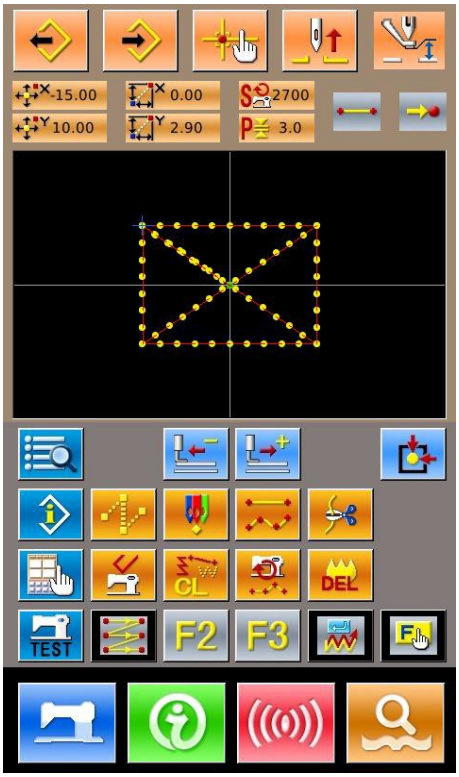
Note: Press the C button to reset the value to zero.

After confirming that the displayed value of the stitch length setting button is 3.0mm, press the confirm button to enter the straight line normal stitch position setting interface.

In this interface, use the direction moving buttons to move the cursor (needle position) from to , then press the OK button .Repeat the above movement operation to move the cursor in the sequence , as shown in the right figure.



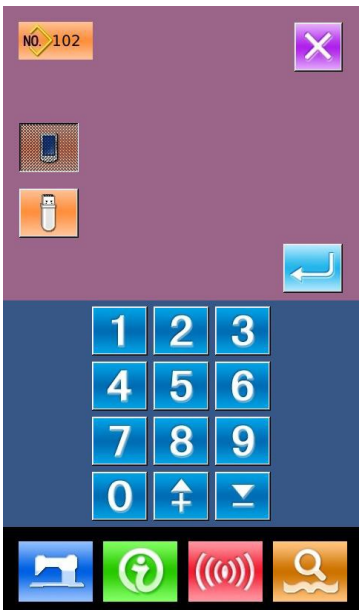
After confirming the pattern, press the button to generate the pattern data and return to the standard pattern editing interface to display the pattern.



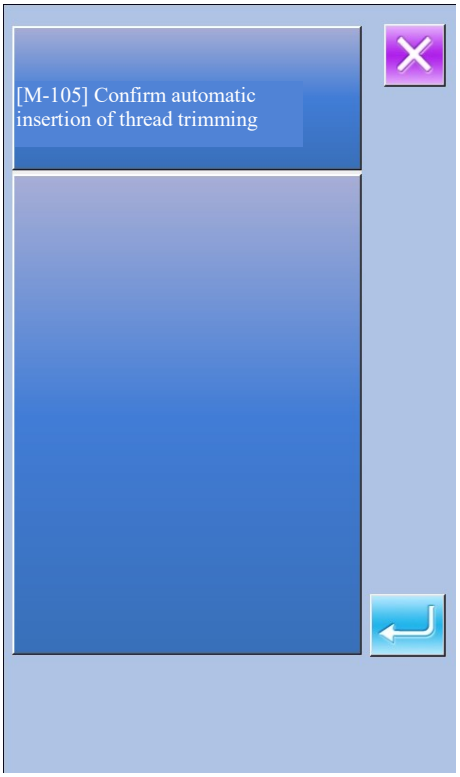
Save the pattern

Press the button to enter the pattern saving interface and save the edited pattern, as shown in the right figure.

The system automatically sets the pattern number, while the user can also input the desired value using the 0~9 numeric keypad or the and buttons. Use the and buttons to select the storage location for the pattern. The user can choose to store it on the operation panel's storage medium or on a USB flash disk.



Press the button to save the pattern. The system will prompt whether to automatically insert the tangent line, as shown in the right figure.



Press the button to automatically add tangents;

Press the button to cancel the automatic tangent addition. After the operation is completed, return to the standard pattern editing interface.

For detailed operations and instructions on pattern editing, please refer to the SP-510 Pattern-making User Manual.

5.3 Exit pattern editing mode

In the standard pattern editing interface, press to enter the mode selection interface, as shown in the right figure.

Press to switch between  and  .

Where:

 : Editing mode

 : Sewing mode

After pressing the  button again, exit the mode selection interface, and the system prompts whether to return to the sewing mode.

Press the  button to exit the pattern editing mode and return to the sewing mode.

6 Information function

The information function includes the following three functions.1) You can specify the oil change period, needle change period, and cleaning period, and issue a warning notification after the specified event has passed.

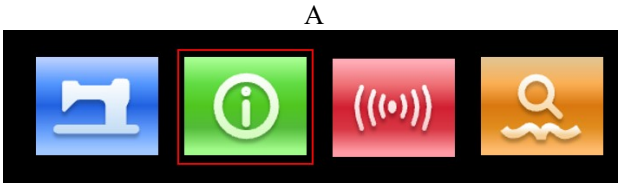
2) The display of target values and actual values increases the production team's awareness of goal achievement and allows for progress confirmation at a glance.

3) Display the threading schematic diagram.

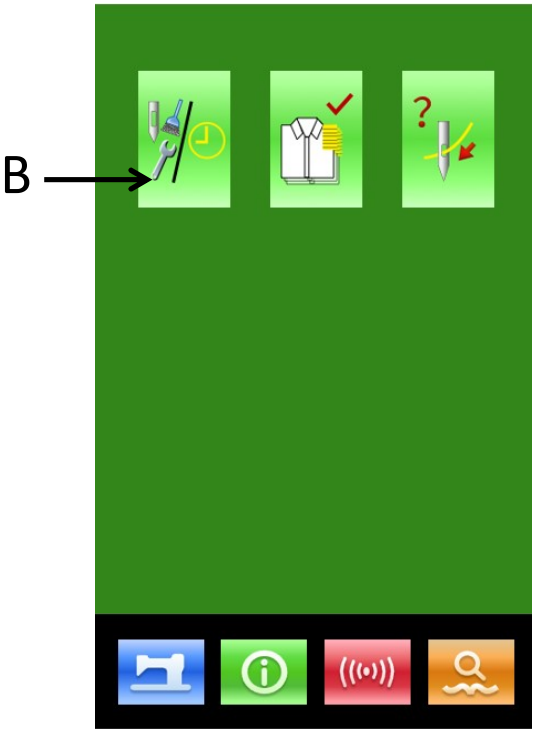
6.1 View maintenance information

① Display information interface

On the data input interface, press the information button (A) on the switch seal to display the information interface.



② Display the maintenance interface. Please press the maintenance information button on the information interface to display button  (B).

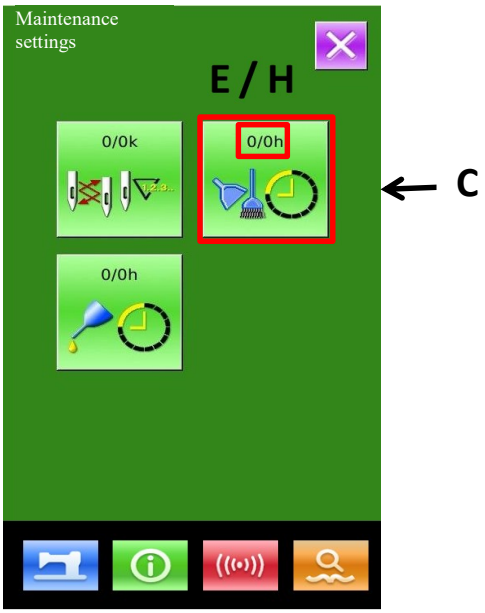


On the maintenance information interface, there are 3 items of information displayed.

: Replace needle (thousand needles)

: Cleaning time (hours)

: Oil change time (hours)



Each item is displayed on button (C), and the interval for notifying maintenance is displayed on button (D),
the remaining time until replacement is displayed on E.

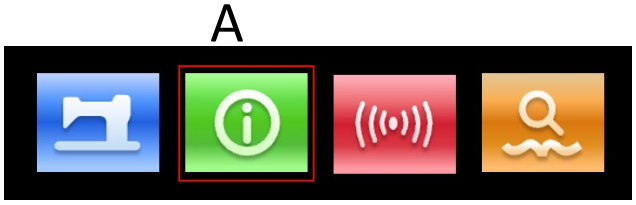
Click the corresponding button to clear the remaining time until replacement.

Press the exit button to return directly to the information interface.

6.2 Maintenance time setting

① Display information interface (maintenance personnel level)

On the data input screen, press the information button (A) for about 3 seconds to display the information screen (maintenance personnel level).



At maintenance personnel level, 6 buttons are displayed.

② Information interface function

When the maintenance personnel level is selected, six functions are displayed:

 : Maintenance

 : Production management

 : Threading instructions

 : Alarm records

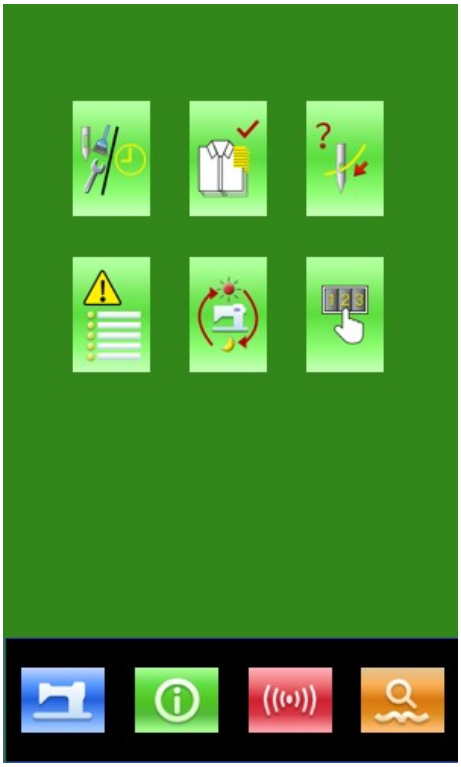
 : Operation records

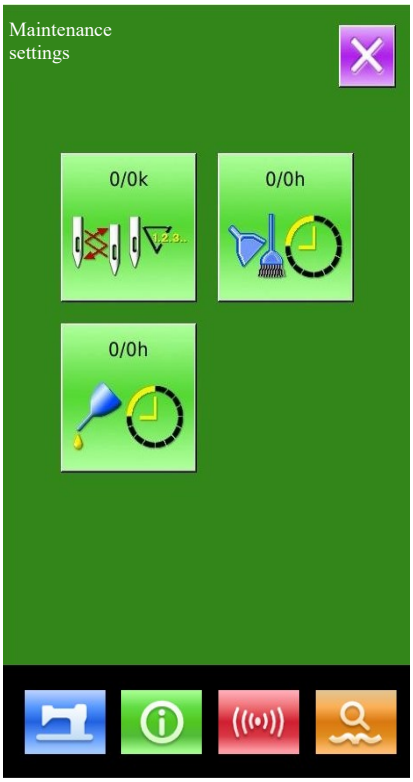
 : Installment password.

Please press the maintenance information button on the information interface

Press the display button  (B) to enter the maintenance interface.

B





③ Maintenance settings

On the maintenance information interface, the same information as the normal maintenance information interface is displayed.

Press the item you want to change the maintenance time.

Press button (C) to display the

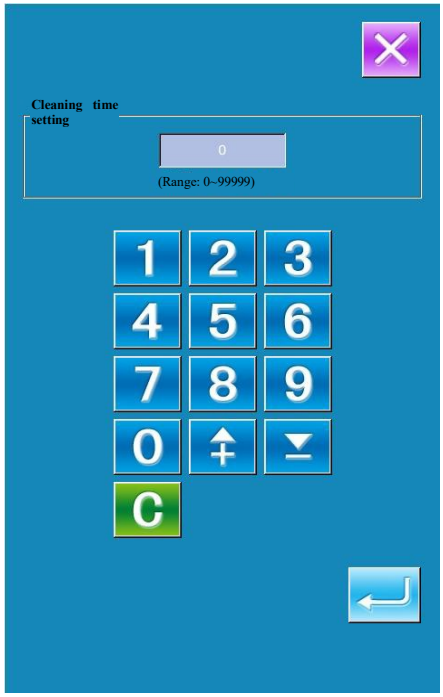
relevant input interface.

For example, pressing the  button allows setting the cleaning time.

Press the exit button  to return directly to the information interface.

④ Set maintenance items

After the maintenance item setting value is set to 0, the maintenance function will be stopped.



Maintenance settings include:

Needle replacement time setting

Cleaning time setting

Oil change time setting. Press the corresponding icon to enter the setting interface:

A. Enter the set value of the maintenance item using the numeric keypad.

B. Press the enter button to confirm the input.

C. Press the exit button to return directly to the maintenance interface.

6.3 How to clear the warning

When the designated maintenance time comes, the information prompt interface is displayed. To clear the maintenance time, press Enter .Before clearing the maintenance time, an information prompt interface is displayed after each sewing is completed.

The information reminder numbers for each item are as follows.

- Needle replacement: M-052
- Oil change time: M-053
- Cleaning time: M-054

6.4 Production management information

On the production management interface, specify the start, and you can display the number of pieces produced from the start to now, the production target number of pieces, etc. There are two ways to display the production management interface:

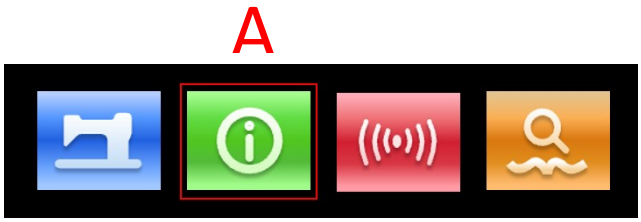
Display from the information interface

Display from the sewing interface

6.4.1 Display from the Information Interface

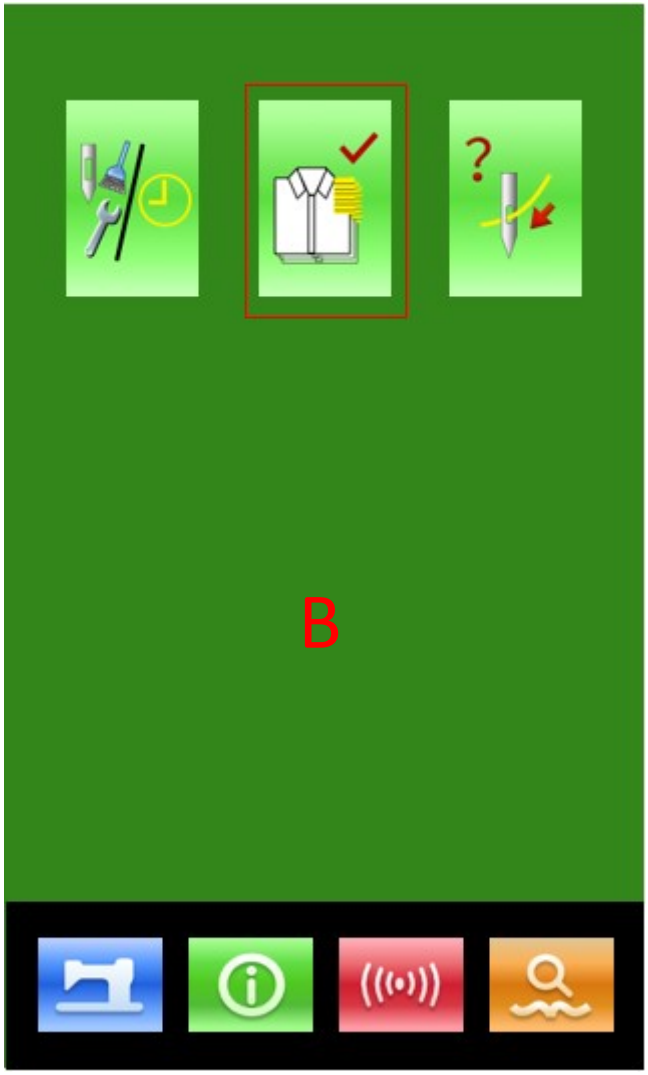
① Display information interface.

Press the information button on the switch part on the data input interface
(A) After that, the Information Interface is displayed.

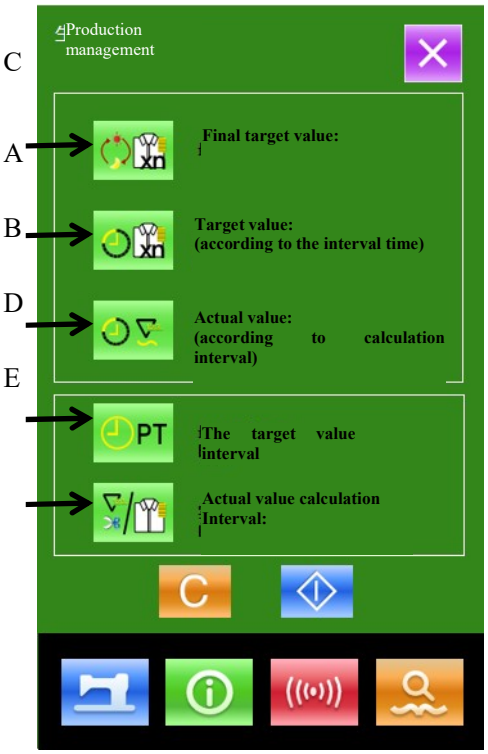


② Display the production management interface. Please press the button (B) displayed on the production management interface of the information interface.

The production management interface is displayed (as shown in the right figure).



The production management interface displays information for the following five items.



A: Target value

The target number of sewn pieces up to now is automatically displayed according to the interval time.

B: Actual value

The number of sewn pieces is automatically displayed. C: Final target value

Set the final target number of sewn pieces. D: Target value interval time

Set the time (in seconds) required to complete a task. E: Actual piece counting interval

Set the interval for actually completing a task

6.4.2 Display from sewing interface

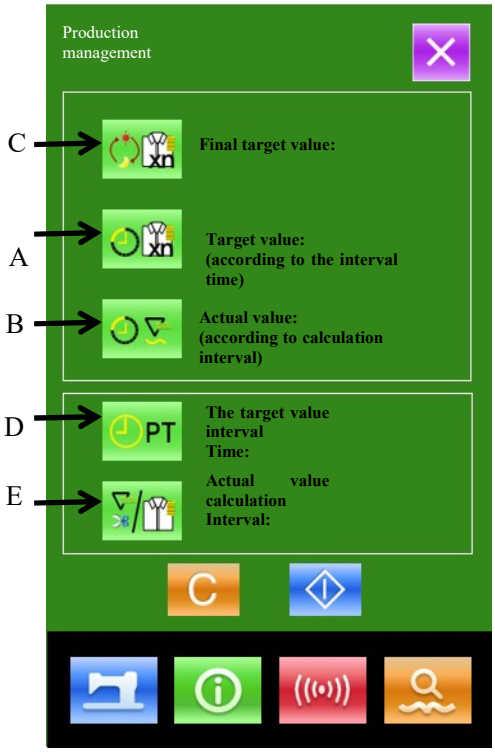
① Display the sewing interface. After pressing the ready button on the  data input screen, the sewing interface is displayed.	
② Display the production management interface.	A

In the sewing interface, press the information button (A), and the production management interface will be displayed. The display content and functions are the same as those in Section 6.4.1 above.	

6.4.3 Production management information setting

① Display the production management interface.

Press  to display the production management interface.



② Enter the final target value.

First, input the production target of sewn pieces from now on. Press the final target value

After pressing the  (C) button, the final target value input interface is displayed.

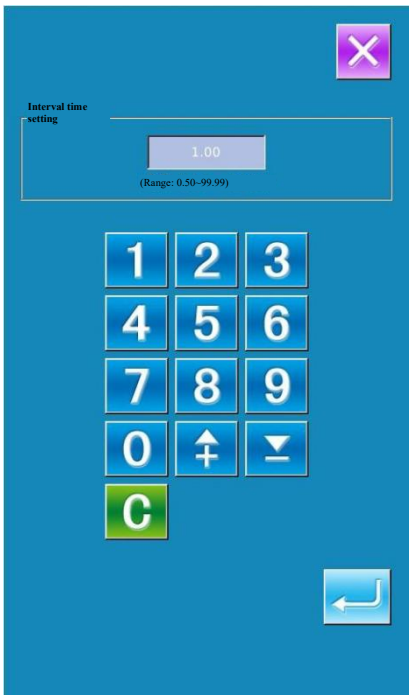
Please use the numeric buttons or the plus and minus buttons to enter the desired value. After entering, please press the confirm button  and then press the exit button  to exit.

③ Enter the interval time.

Then, please enter the interval time required for one process.

After pressing the interval time button 

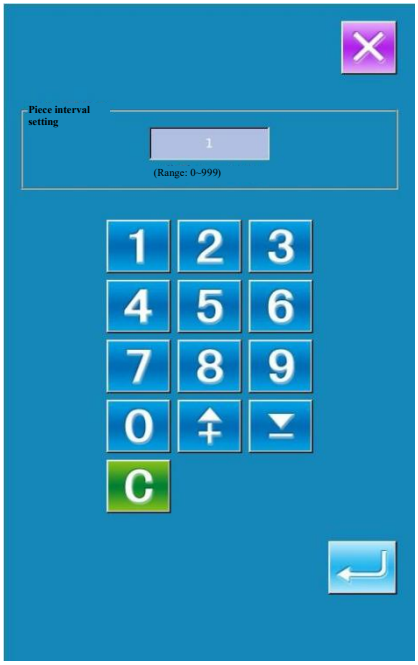
(D) on the previous page, the interval input interface is displayed.



Please use the numeric buttons or the plus and minus buttons to enter the desired value. After entering, please press the confirm button  , and then press the exit button  to exit directly.

⑤ Enter the piece counting interval.  Then, please enter the average interval of one process.

When the piece counting interval button [ ] (E) on the previous page is pressed, the piece counting interval input interface is displayed.



Please use the numeric buttons or the plus and minus buttons to enter the desired value. After entering, please press the confirm button  , and then press the exit button  to exit directly.

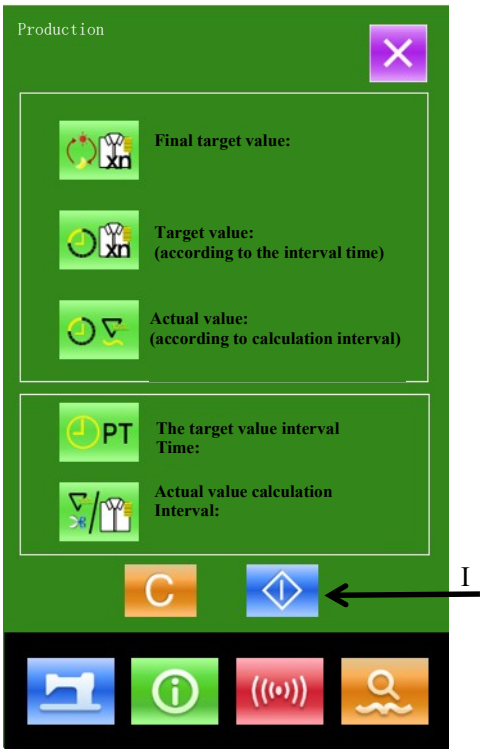
⑤ Start counting the number of pieces produced.

After pressing the  button (I), the [Final target value], [Target value], and [Actual value] become grayed out, and counting of the number of pieces produced begins. Final target value: Can be used as a reference time

Target value: Begins timing according to the duration set in [Target Value Interval] and increases by 1 after each time interval.

Actual value: When accessed through "6.4.2 Display from the sewing interface", the actual value starts counting based on the [Actual Value Piece Counting Interval] setting, and increases by 1 after each piece is sewn.

By setting the target and actual values, you can compare whether the production efficiency of each sewn piece has increased or decreased.



⑥ Stop counting.

In the counting state, the stop button  is displayed. Press the stop button  to stop counting. After stopping, the count button  is displayed at the stop button's position. To continue counting, press the count button  again.

The count value will not be cleared until the clear button  is pressed.

Press the exit button  to exit and return directly.

⑦ Clear the count value.

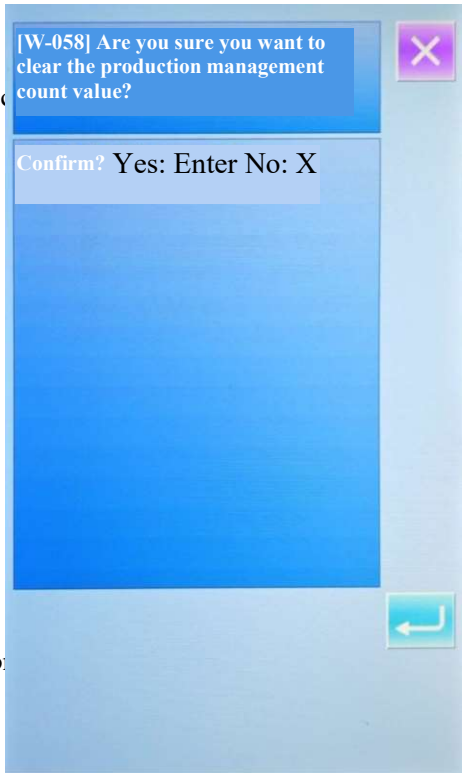
To clear the count value, set the counter to stop c

Press the clear button C to clear the status. The values that can be cleared are the current target value  and actual value  .

(Note: The clear button is displayed only when counting is stopped.)

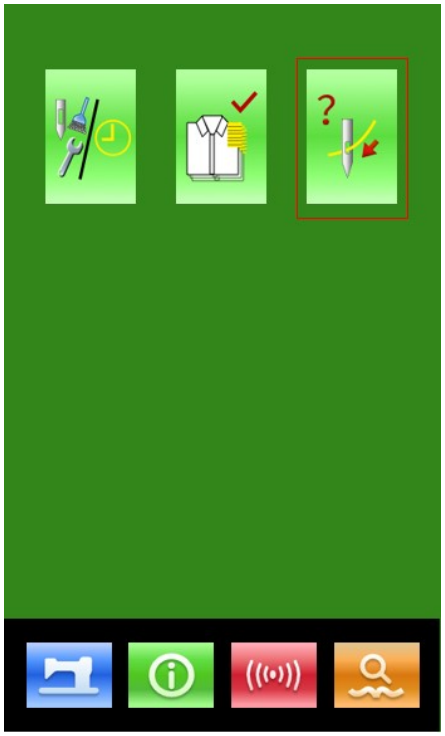
After pressing the clear button C, the clear confirmation interface is displayed.

On the clear confirmation interface, press the co  Confirm clearing, and press the exit button  to exit directly.

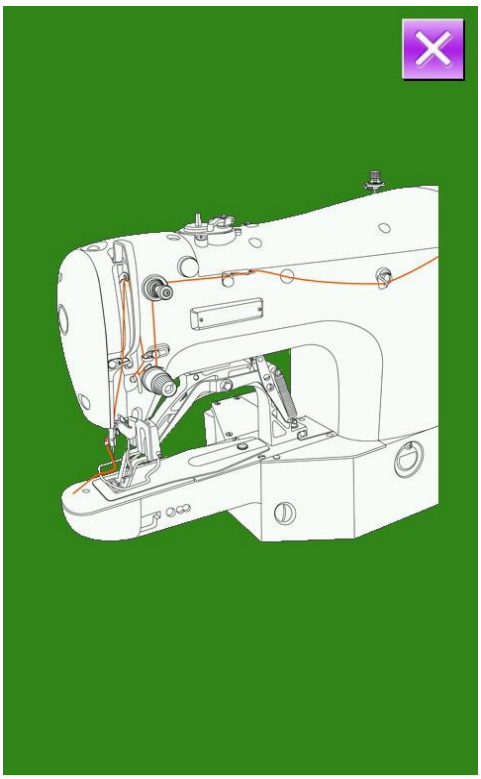


6.5 Displaying the threading diagram

After pressing the threading button  C (C) on the information interface, the upper threading diagram is displayed.

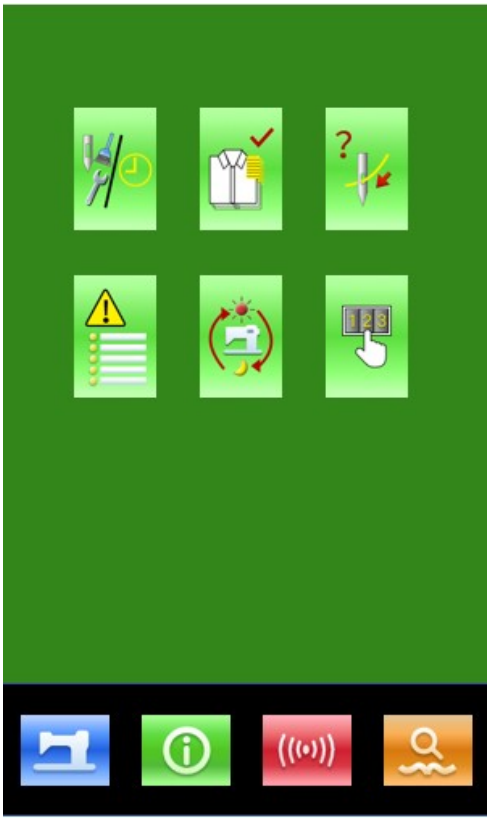


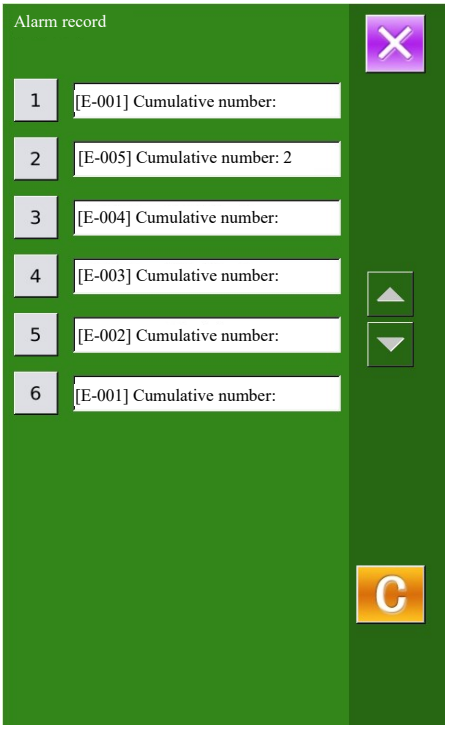
When threading, refer to.



6.6 Alarm record

① At the maintenance personnel level, press  to query the machine's alarm record information.





② Press to query records

As shown in the figure, the alarm information and its frequency are displayed

Operation button functions:

A. Press and to turn pages.

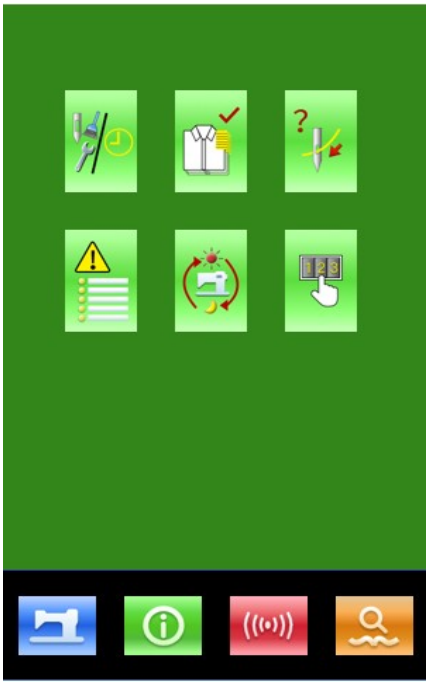
B. Press the exit button to exit the query operation.

C. Press the clear button to retain the alarm record

③ Press the serial number button on the left side of the alarm prompt bar to display detailed information of the alarm record

Press to exit.

6.7 Operation record



① When maintenance personnel level is selected, press to query

Machine operation information.

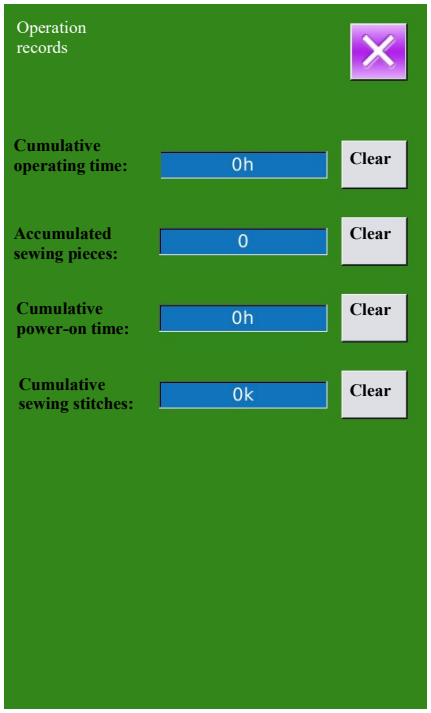
② Operation records include:

a): Machine cumulative operating time (in hours)

b): Machine cumulative thread cutting count

c): Machine cumulative power-on time (in hours)

d): Machine cumulative stitch count (per 100 units)



A. Press the exit button to exit. B. Press the clear buttonto clear records

6.8 Installment password setting

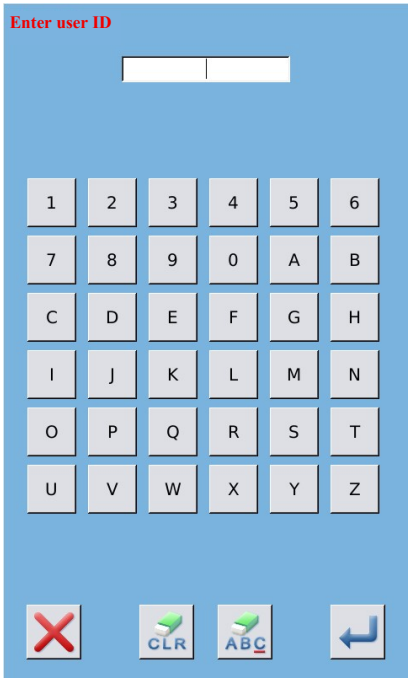
1) At maintenance personnel level, press  **to set**

Installment password

The user ID input interface will be displayed in this interface. After entering the correct manufacturer ID, you'll enter password management mode, mainly used for setting and managing user installment passwords.

You can set up to 10 different password activation dates.

The system can display password details set by the manufacturer.



2) Press  **to prompt entry of the manufacturer ID**

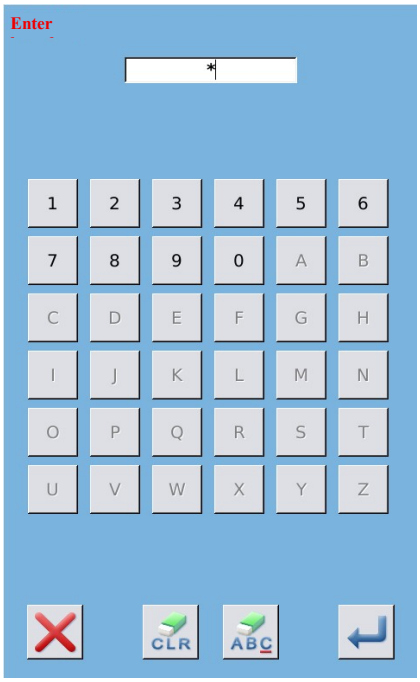
3) Enter the correct manufacturer ID to access the password setup interface. Steps to set up installment password:

A. Continue entering additional installment passwords

4) Enter the board number

Press the [Board Number] button to enter the board number input interface. After entering the board number, press  to complete the board number input interface.

※ The board number is four digits, ranging from 0 to 9999



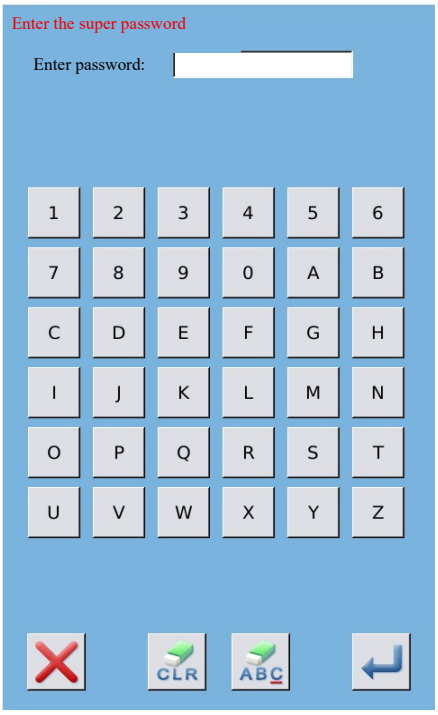
5) Enter the system clock

Press the [Clock] button to enter the system clock setting interface and confirm the system clock.

6) Enter the super password. Press the [Super Password] button to access the super password setting interface and input the super password.

※ You can enter a total password of up to 9 digits

※ Password input requires confirmation; the two passwords must be identical.



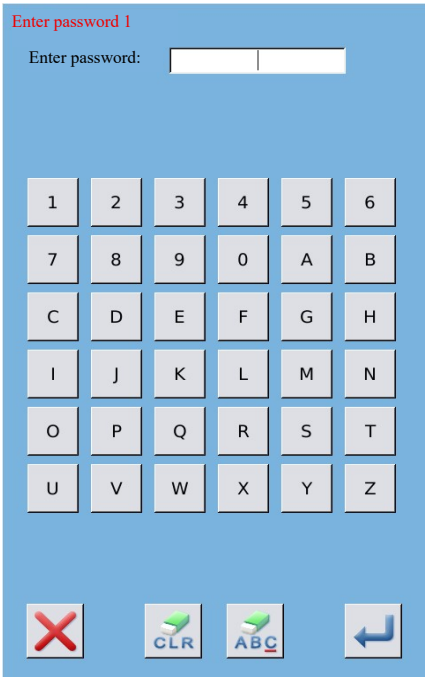
7) Enter the installment password

Press the [Password-1] button to access the first password expiration interface, and input the first valid date.

After selecting the appropriate date, press  to confirm, then enter the password setting interface to input the password.

※ The date cannot be earlier than the system date.

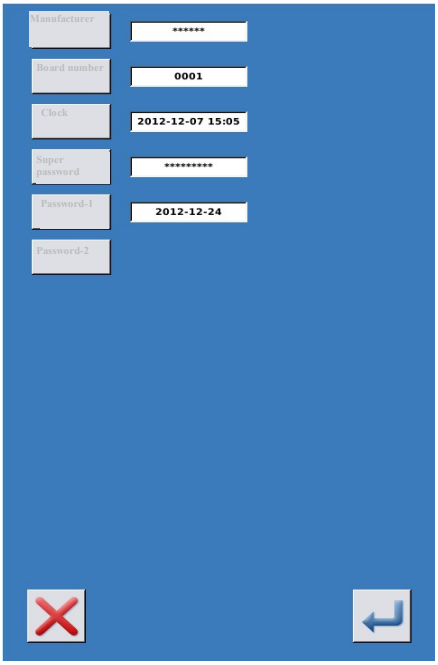
※ Password input requires confirmation; the two passwords must be identical.



8) Enter additional installment passwords

Additional installment password settings are identical to ⑦; refer to settings of ⑦.

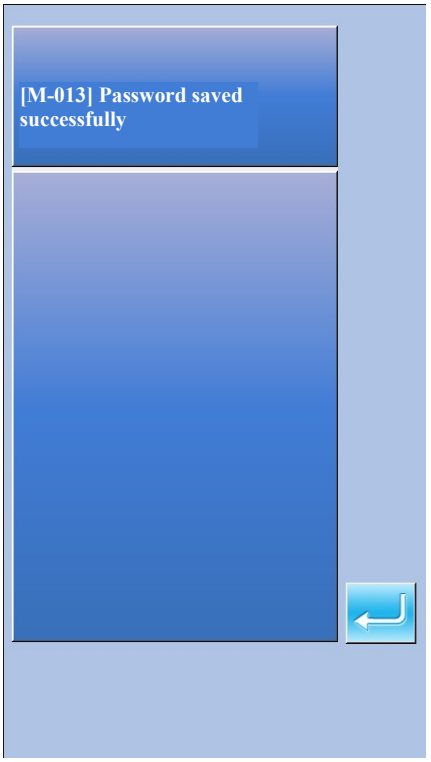
※ The next valid date must be later than the previous valid date.



9) Save the password

A. After entering the password, press  to complete password saving.

B. The password is successfully saved, and the [Password Saved Successfully] interface appears. Press  to finalize password saving and return to the [Information Main Interface].

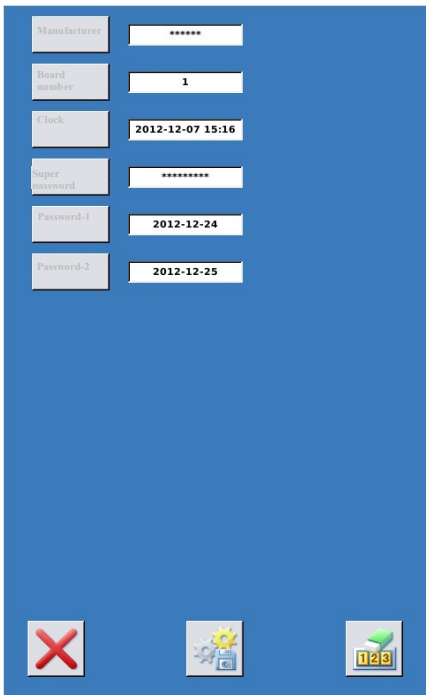


10) Actively clear passwords. Actively clearing passwords refers to clearing password settings before installment password activation.

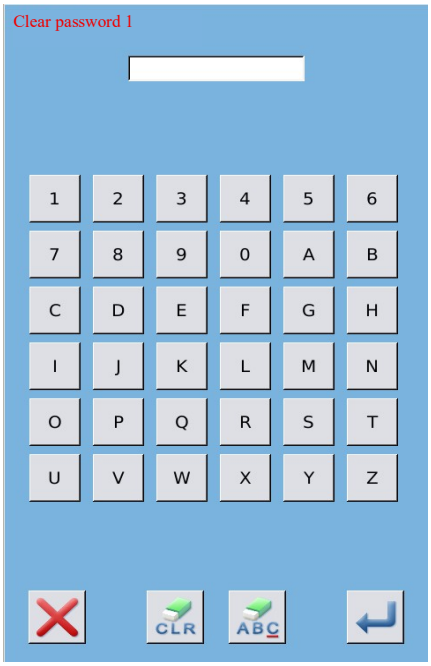
A. Password entry method is identical to password setup. B. Upon correct manufacturer ID input, the right-side interface is displayed.

C. The system displays the current time and each installment password's activation date.

D. Press  to sequentially delete installment passwords from beginning to end.



After continuously entering the correct installment password, the current period's password will be cleared. If the entered password is the super password, all installment passwords will be cleared. The cleared installment dates will be displayed in red. If all passwords are cleared, the system will automatically exit and return to the information main interface.



11) Password occurrence clearance. If the system has set a password and has not cleared it, using the machine until the password expiration date will trigger password occurrence.

At this point, to continue usage, you must enter the password to proceed normally.

A. Valid passwords include the prompted current password and the super password.

B. If the current password is entered, the current period's password will be cleared. After clearing the current password, if there are no subsequent passwords, the machine will no longer experience password occurrence issues.

C. If the super password is entered, all installment passwords will be cleared.

7 Communication function

The communication function performs the following tasks:

Download sewing data compiled by other sewing machines or pattern-making software to the sewing machine.

Load sewing data onto a USB flash disk or computer.

Load parameters from a USB flash disk.

Export the parameters saved in the operation head to a USB flash disk.

Perform operation head software upgrade.

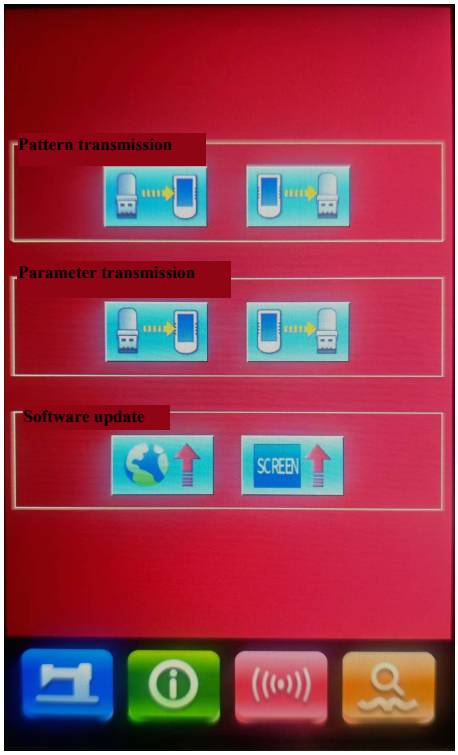
7.1 About data that may be processed

The sewing data that can be processed are as follows:

Data types	Standard format
VDT	[0-9][0-9][1-9].vdt

When saving data to a USB flash disk, ensure it is saved to the "pattern" folder, otherwise the file cannot be read.

7.2 Functional operation



① Display communication interface

In the data input interface, press the communication button to display the communication interface.

② Select the corresponding operation.

Functions available in this interface are divided into three categories:

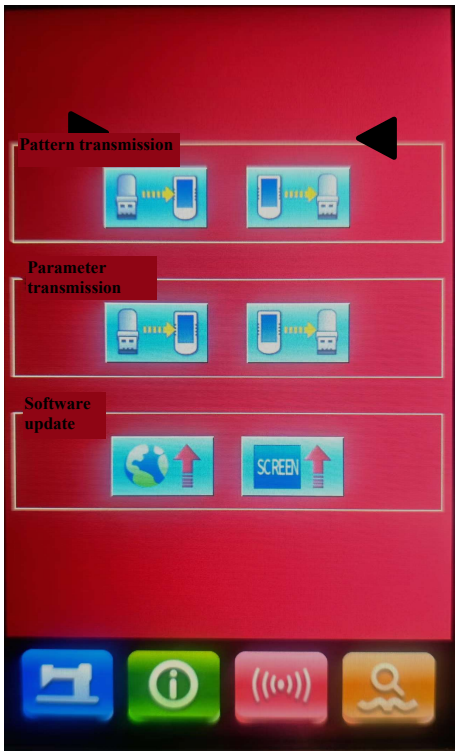
Pattern transmission

Parameter transmission

Software upgrade: Click the appropriate icon to execute the function.

③ Press the communication button to exit the communication function.

7.3 Pattern transmission



① Display communication interface

In the communication interface, press:

A:Import the pattern from the USB flash disk to the operation head.

B: Export the pattern saved in the operation head to the USB flash disk.

USB flash disk path: pattern

※ When importing a pattern from a USB flash disk, ensure that the pattern file is saved in the pattern directory of the USB flash disk.

※ When exporting the pattern from the operating head, the exported pattern file is saved in the pattern directory of the USB flash disk.

※ Naming convention for patterns in a USB flash disk

When importing patterns from a USB flash disk, adhere to the following naming rules:

File name: three-digit number, 001~999; Suffix: vdt (case insensitive)

Example:

Correct file naming: 100.vdt, 102.VDT.

Other naming conventions are incorrect and will not be recognized by the system.

② Press the A indicator button to enter the interface for importing patterns from the USB flash disk to the operating head.

Figure 1

Note: If the pattern in the USB flash disk shares the same name as a pattern in the operating head, the pattern number will be shown in red. In such cases, use the F button to import the pattern into the operating head. As shown in Figure 1.

A. Use the [Up Arrow] and [Down Arrow] buttons to navigate pages.

B. Use the following operations to select the pattern:

Press  to select all patterns.

Press  to invert selection.

Click the pattern number button.

C. Press  to complete the pattern import function, ensuring the pattern number in the operating head matches the selected pattern number.

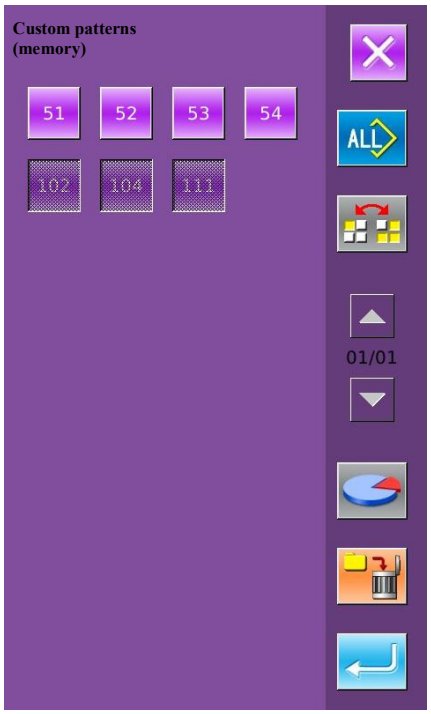
Consistent.

D. Press  to delete the selected pattern.

E. Press the exit button  to return to the communication interface.

Note: If the selected pattern number already exists in the operating head, it cannot be overwritten.

③ Press the B indicator button to export the pattern from the operating head to the USB flash disk.



A. Use the [Up Arrow] and [Down Arrow] buttons to navigate pages.

B. Use the following operations to select the pattern:

Press  to select all patterns.

Press  to invert selection.

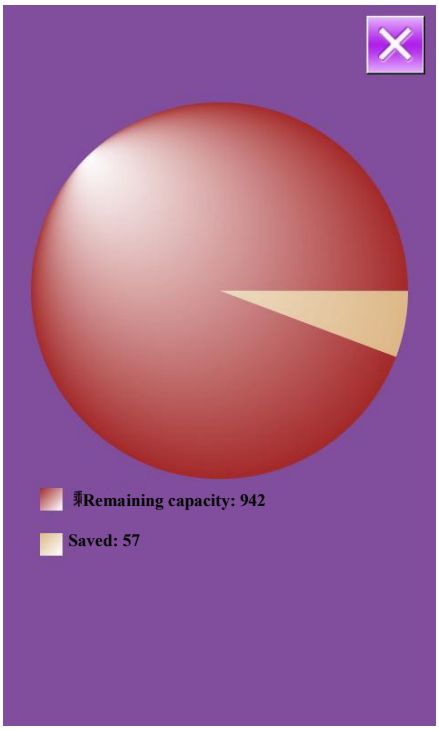
Click the pattern number button.

C. Press  to delete the selected pattern.

D. Press  to complete the export pattern function.

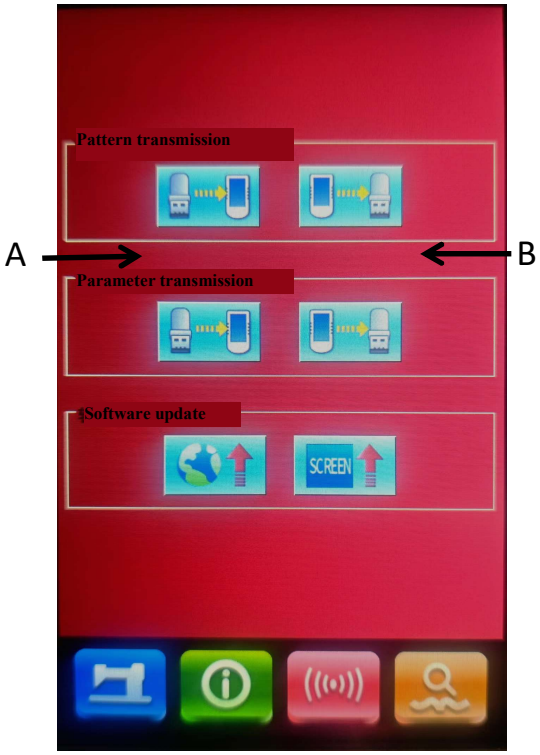
E. Press the exit button  to exit the pattern export function interface.

F. In this interface, press the  button to display the space occupied by the patterns in the current memory and the number of patterns.



7.4 Parameter transmission

① **Display communication interface**



In the communication interface, press:

A:Import parameters from USB flash disk to the operation head

B: Export the parameters saved in the operation head to the USB flash disk

※ When importing parameters from a USB flash disk, please save the parameter file in the USB flash disk directory.

※ When exporting parameters from the operation head, the exported parameter file is saved in the USB flash disk

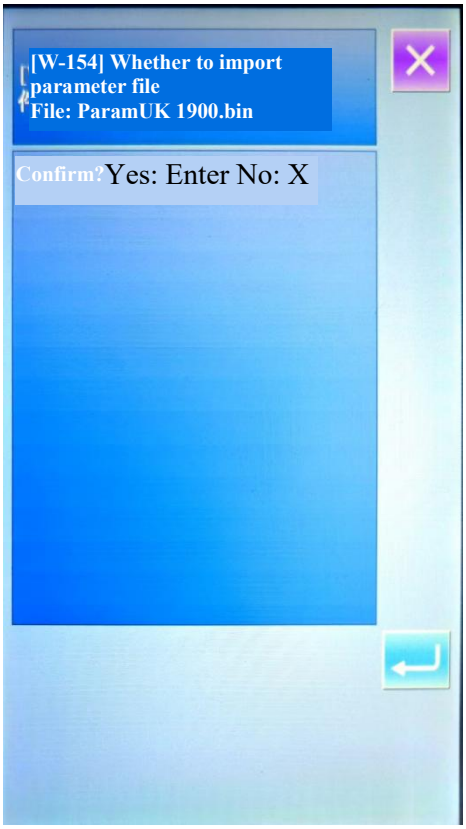
※ The parameter file is a binary file. Operations on the file are completed on the operation head. Do not modify the file manually to prevent affecting its functionality.

② Press the A indicator button to complete the import of parameters from the USB flash disk to the operation head.

A. Press the enter button to complete importing parameters from the USB flash disk to the operation head and exit

B. Press the exit button to exit directly

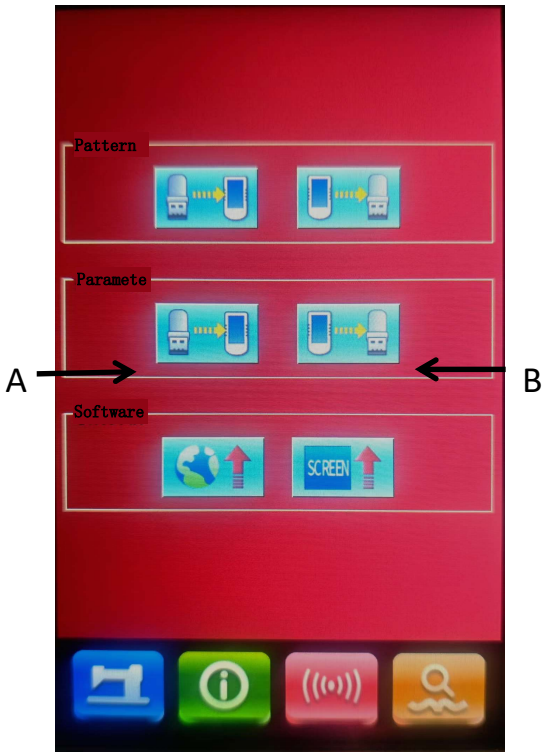
③ Press the B indicator button to export the parameters from the operation head to the USB flash disk.



A. Press the enter button to complete exporting parameters from the operation head to the USB flash disk and exit

B. Press the exit button to exit directly

7.5 Software upgrade



1) Display the communication interface

In the communication interface, press the A button to enter the software upgrade interface.

2) Upgrade type selection

Software upgrade includes:

Operation head program

Icon

Display font

Startup screen

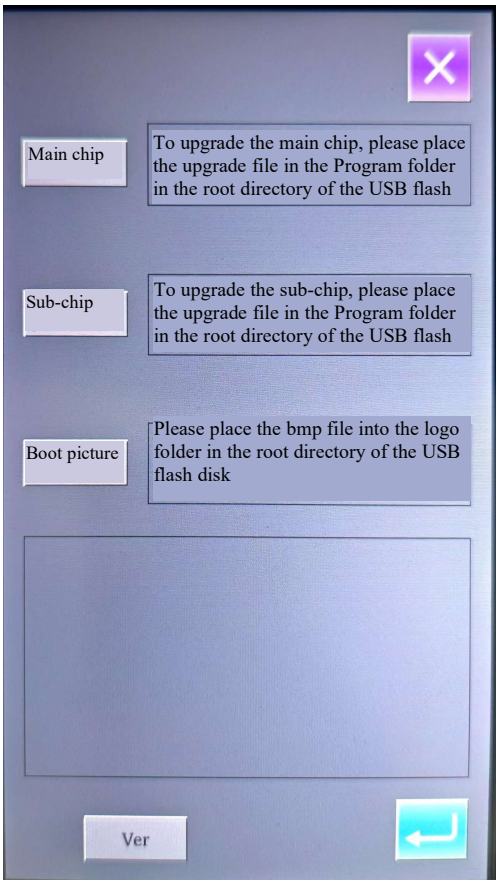
Press and to turn pages

A. Press the enter button to complete the upgrade of the selected function and exit

B. Press the exit button to exit directly

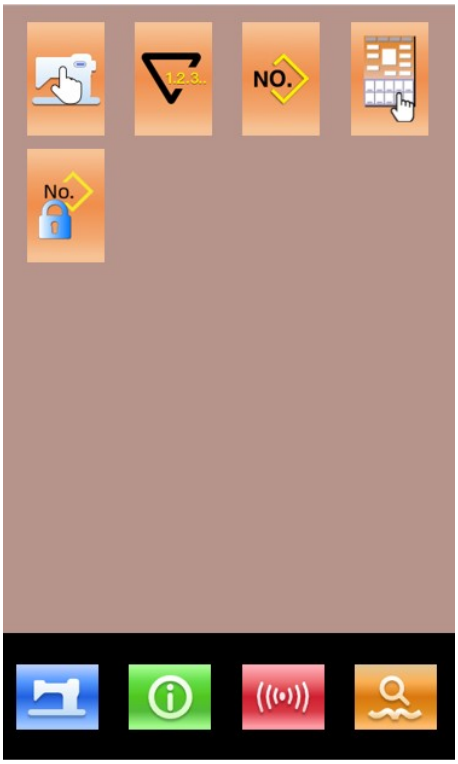
C. Multiple function buttons can be selected simultaneously, and the system will execute the corresponding upgrade functions in sequence.

D. After the upgrade is complete, shut down and restart the system.



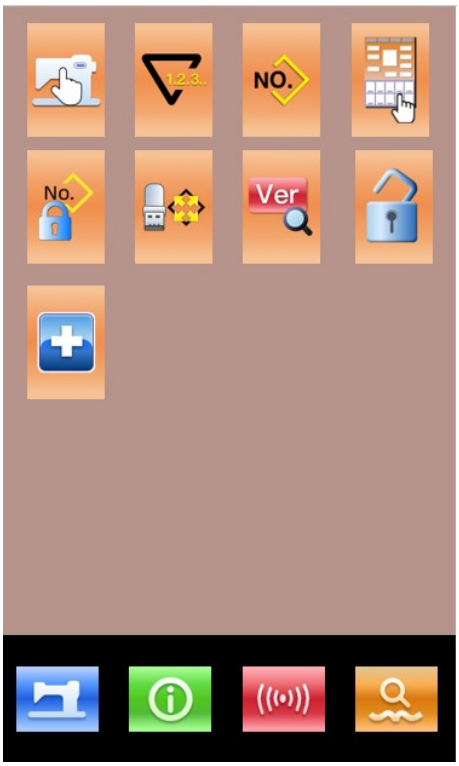
3) Press B to enter the boot screen upgrade interface. Place the bin file generated by the boot screen into the update directory of the USB flash disk. After selecting the bin file, press the enter button  to complete the boot screen upgrade.

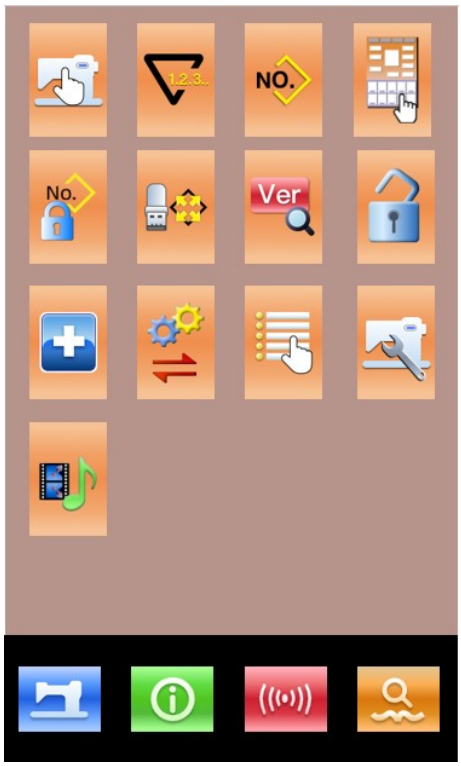
8 Mode and parameter settings



Press  to toggle between the data input interface and the mode interface (as shown in the right figure). Detailed settings and editing operations can be performed on this interface.

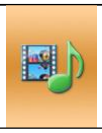
Press and hold the  button for 3 seconds to enter setting mode level 2. Press and hold for 6 seconds to enter setting mode level 3.



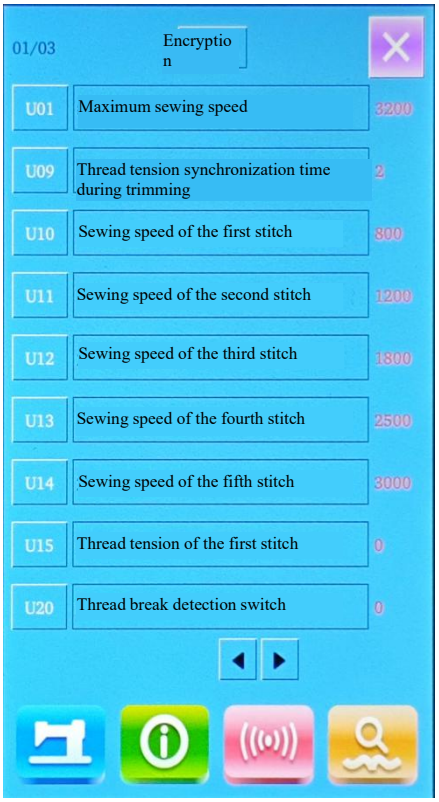


8.1 Functional description

No.	Icon	Function	Content
		Level 1 parameter setting	Perform Level 1 (U) parameter settings.
		Counter settings	The counter type, count value, and set value can be configured.
		Sewing type settings	Toggle between normal pattern sewing and combined pattern sewing.
		Pattern lock	Enter the pattern lock settings interface.
		Pattern editing	Access the pattern design editing interface.
		Format USB flash disk	Format USB flash disk.
		Software version query	Query the software versions of the current panel, main control, and motor.
		Keyboard lock	Certain configurable functions can be locked.
		Detection mode	Test the machine's peripherals and LCD.
		Parameter backup	Backup and restore current parameters.
		Edit parameter switch	Parameters being edited can be enabled or disabled.
		Level 2 parameter settings	Execute Level 2 (K) parameter settings.

		Video playback	Video files can be played.

8.2 Level 1 parameter settings



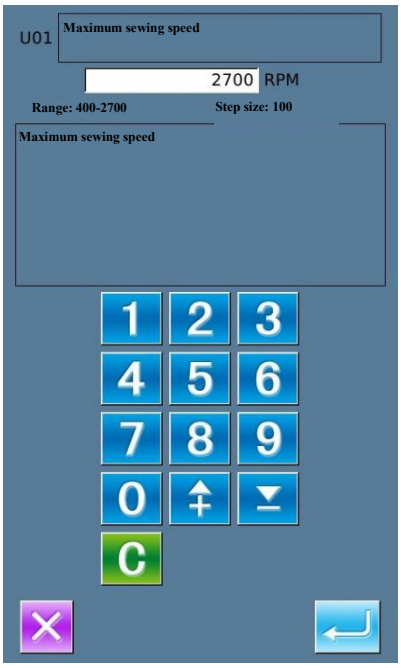
① Parameter setting operation

Select  to enter the Level 1 parameter settings interface (as shown in the right figure).

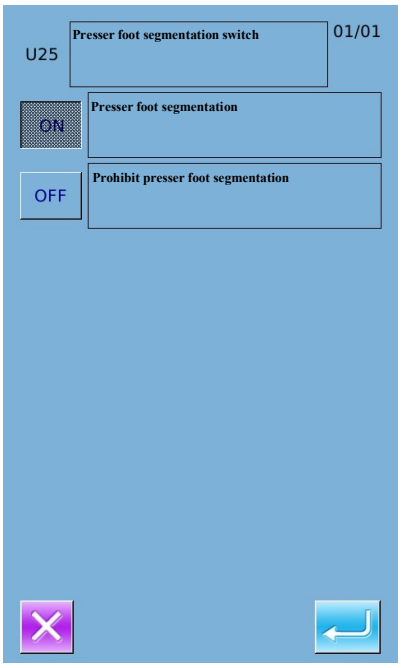
Press the  button to exit the parameter settings interface. When a parameter is modified, the [Modified] button appears on the parameter settings interface.

After selecting the parameter to be modified, enter the setting mode. Parameter settings are divided into data input type and selection type. Examples are as follows:

Select U01 to enter the interface

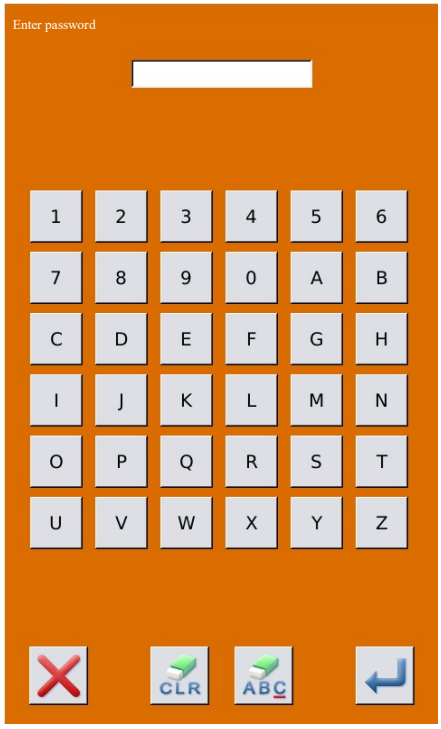


Select U25 to enter the interface



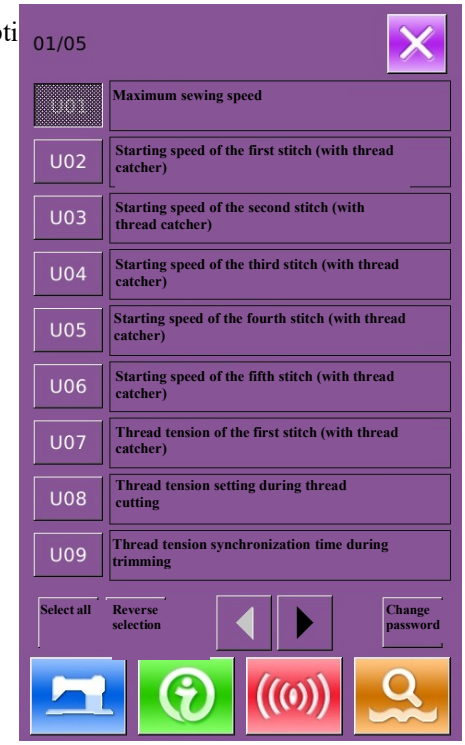
② Parameter encryption

A. Press the "Encryption" button to enter the password input interface. Press CLR to clear all input. Press ABC to delete one character at a time.



B. After entering the correct password, access the parameter encryption interface and choose the parameters to encrypt. Press [Select All] to encrypt all parameters. Press [Reverse Selection] to invert the selection. Press [Change Password] to modify the encryption password, default is manufacturer ID.

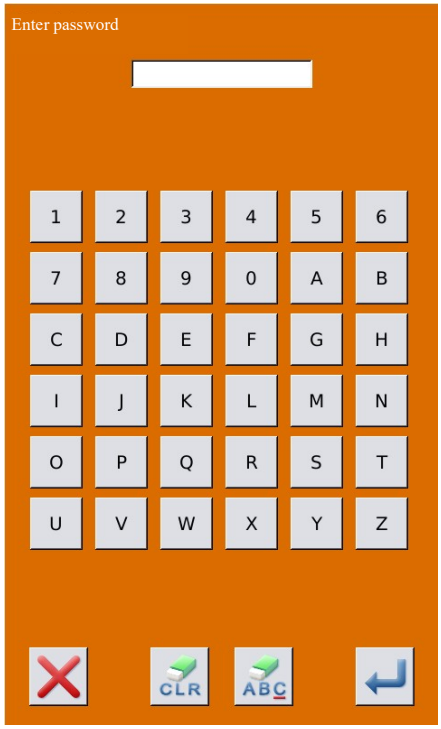
Press the exit button to exit the encrypti



③ Query modified parameters

A. When a parameter is modified, the [Modified] button appears on the parameter settings interface.

B. In the Parameter Setting Interface, press the [Modified] button to query the modified parameters. First, you are required to enter a password. For operations on the password input interface, refer to item A of ②. After entering the correct password, enter the modified parameter query interface.



C. In the modified parameter query interface, you can view a list of all modified parameters, displaying both the current modified values and their reset values.

Within this interface:

Press the [Restore All] button to restore the modified parameters to their reset values.

Tap the parameter name button, such as [Presser Foot Type], then tap [Select Restore] to restore the selected parameters to their reset values. Multiple parameter buttons can be selected.

Press the parameter number button, such as [U14], to enter the Parameter Setting Interface and reconfigure the parameter values.

When more than one page exists, use the arrow buttons to navigate pages.

Click  to exit this interface.

④ Level 1 Parameter Table

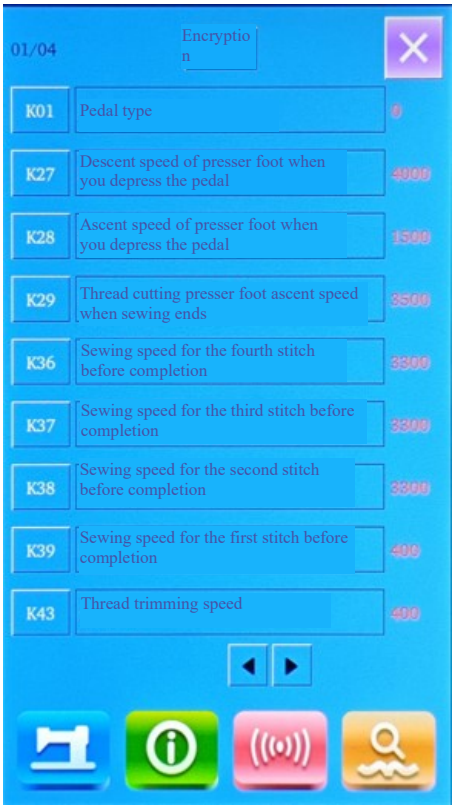
No.	Parameter	Setting range	Edit unit	Factory settings
U01	Maximum sewing speed	400 ~ 2500	100rpm	2700rpm
U09	Thread tension synchronization time during trimming	-6 ~ 4	1	2
U10	Starting speed of the first stitch	400 ~ 1500	100rpm	800rpm
U11	Starting speed of the second stitch	400 ~ 3500	100rpm	1200rpm
U12	Starting speed of the third stitch	400 ~ 3500	100rpm	1800rpm
U13	Starting speed of the fourth stitch	400 ~ 3500	100rpm	2500rpm
U14	Starting speed of the fifth stitch	400 ~ 3500	100rpm	3000rpm
U15	Thread tension of the first stitch	0 ~ 200	1	1
U20	Thread break detection switch	0 ~ 1	1	1
U32	Disable buzzer	0 ~ 2	1	2
U36	Synchronization timing adjustment for fabric feeding	-8 ~ 16	1	16
U37	Presser Foot Condition Post-Sewing	0 ~ 2	1	1
U38	Prohibit lifting presser foot	0 ~ 1	1	0
U39	Origin Search Setting Post-Sewing Completion	0 ~ 1	1	0
U43	Brightness of head LED lighting lamp	0 ~ 5	1	5
U46	Set prohibiting thread cutting	0 ~ 1	1	0
U49	Winding speed configuration	800 ~2000	100rpm	1600rpm
U63	XY scaling rate setting mode	0 ~ 1	1	0
U97	Thread cutting mode after pause	0 ~ 1	1	1
U135	Presser Foot Activity Setting Prior to Sewing	0 ~ 1	1	0
U193	Prohibit counter modification	0 ~ 1	1	0
U200	Language selection	0 ~ 3	1	0

8.3 Level 2 parameter settings

① Parameter setting operation

In setting mode level 3, select  to enter the Level 2 parameter setting interface (as shown in the right figure).

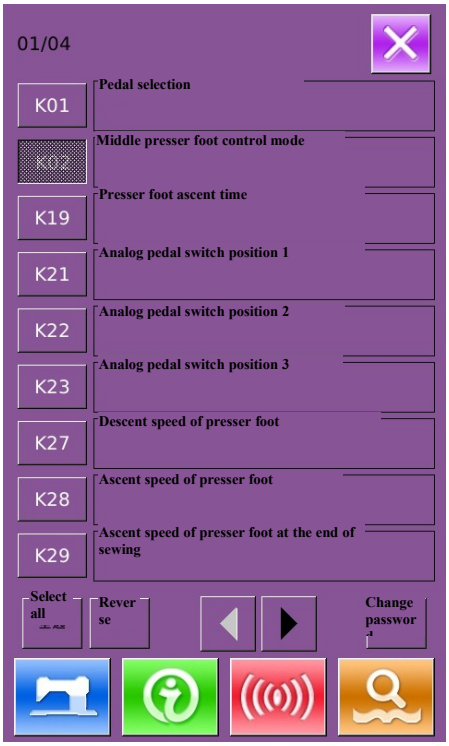
For the operation method, refer to "8.2 Level 1 Parameter Settings". When a parameter is modified, the [Modified] button appears on the parameter settings interface.



Press the  button to exit the parameter setting interface.

② Parameter encryption

For the operating steps of parameter encryption, please refer to "8.2 Level 1 Parameter Settings".

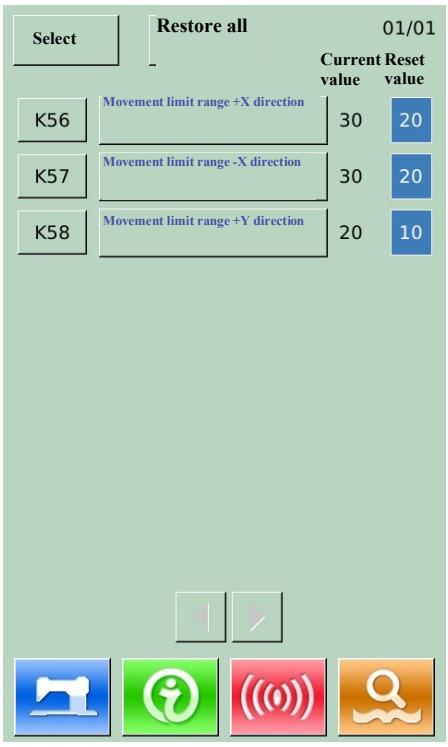


Press the  button to exit the parameter encryption interface.

③ Modified parameter query

When a parameter is modified, the [Modified] button is displayed on the parameter setting interface. Click the [Modified] button to query the modified parameters and reset the parameters.

For specific operations, please refer to "8.2 Level 1 Parameter Settings".



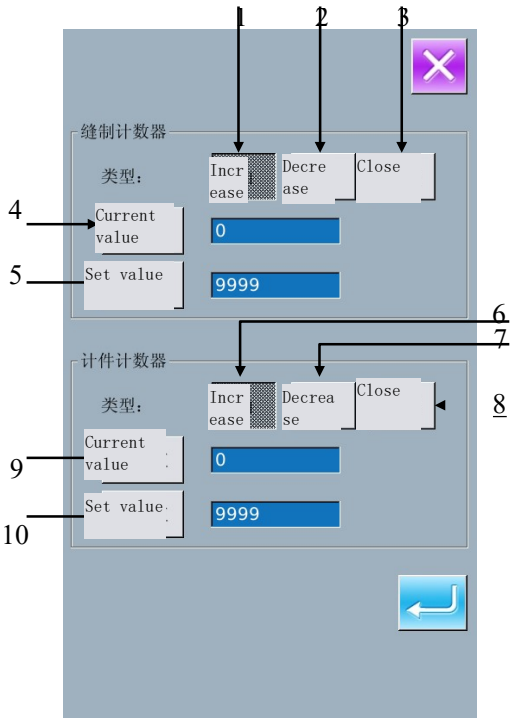
④ **Level 2 Parameter Table**

No.	Parameter	Setting range	Edit unit	Factory settings
K01	Pedal type	0 ~ 1	1	0
K27	Descent speed of presser foot	100 ~ 4000rpm	100rpm	4000rpm
K28	Ascent speed of presser foot	100 ~ 4000rpm	100rpm	1500rpm
K29	Ascent speed of presser foot at the end of sewing	100 ~ 4000rpm	100rpm	3500rpm
K036	Sewing speed for the fourth stitch before completion	400 ~ 3500rpm	100rpm	3300
K037	Sewing speed for the third stitch before completion	400 ~ 3500rpm	100rpm	3300
K038	Sewing speed for the second stitch before completion	400 ~ 3500rpm	100rpm	3300
K039	Sewing speed for the first stitch before completion	400 ~ 3500rpm	100rpm	400
K043	Thread trimming speed	300 ~ 800rpm	100rpm	400
K056	Movement limit range in +X direction (right)	0 ~ 50	1	20
K057	Movement limit range in -X direction (left)	0 ~ 50	1	20
K058	Movement limit range in +Y direction (rear)	0 ~ 50	1	20
K059	Movement limit range in -Y direction (front)	0 ~ 50	1	20
K0	Prohibit pedal alarm	0 ~ 1	1	0

90				
K095	Thread trimming angle	-9 ~ 9	1	1
K112	Arm shaft stop compensation	-10 ~ 10	0	1
K122	OC length fine adjustment	-128 ~ 128	1	15
K123	OD length fine adjustment	-128 ~ 128	1	-22
K124	BD length fine adjustment	-512 ~ 512	1	13
K125	OC length	1780 ~ 2380	1	2080
K126	OD length	-1450 ~ 2050	1	1750
K127	BD length	390 ~ 590	1	490
K150	Disable the head flip switch	0 ~ 1	1	0
K160	Disable reverse emergency stop function switch	0 ~ 1	1	0
K172	Number of stitches setting for thread break detection	0 ~ 10	1	0
K180	(X) Motor find origin method	0 ~ 2	1	0
K181	(Y) Motor find origin method	0 ~ 2	1	0
K182	(C) Motor find origin method	0 ~ 2	1	0
K183	(P) Motor find origin method	0 ~ 2	1	0
K221	Hat eye positioning pin X coordinate	-600 ~ 600	1	0
K222	Hat eye positioning pin Y coordinate	-600 ~ 600	1	0
K241	Model settings			

8.4 Counter settings

Press  to enter the counter setting interface (as shown in the right figure).



Operating steps:

① Sewing counter type selection: select sewing counting or piece counting function.

② Set the current value and set value.

In the selected type, press the "Current Value" or "Set Value" button to perform related operations.

③ Choose whether to count up or down.

In the selected type, press the "Plus" and "Minus" buttons to perform related operations.

Press the  button to exit the counter setting interface. Press  to complete the setting and exit.

Sewing counting increment:

Each time one shape of sewing material is sewn, the current value is incremented. When the current value matches the set value, the counter overflow alarm interface is displayed.

Press  to reset the counter current value to 0.

Sewing counting decrement:

After sewing one shape of sewing material, the current value is decremented by 1. When the current value reaches 0, the counter overflow alarm interface is displayed. Press  to reset the counter current value to the set value.

Piece counting increment:

Each time one sewing cycle or one continuous sewing is performed, the current value is incremented. When the current value matches the set value, the counter overflow alarm interface is displayed. Press  to reset the counter current value to 0.

Piece counting decrement:

Each time one sewing cycle or one continuous sewing is performed, the current value is decremented by 1.When the current value reaches 0, the count is displayed.

Counter overflow alarm interface. Press  to reset the counter current value to the set value.

④ Turn off the counter

In the selected type, press the "Close" button to deactivate the counter.

8.4.1 Function introduction

No.	Function
1	Sewing increment counter
2	Sewing decrement counter
3	Turn off the sewing counter
4	Set the current value of the sewing counter
5	Set the preset value of the sewing counter
6	Piece increment counter
7	Piece decrement counter
8	Turn off the piece counter
9	Set the current value of the piece counter
10	Set the preset value of the piece counter

8.5 Change sewing type

Press 

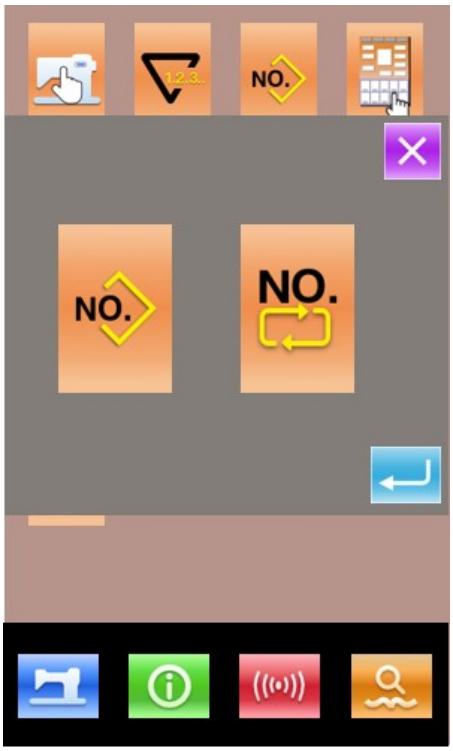
to enter the sewing type selection interface.

: Normal stitch

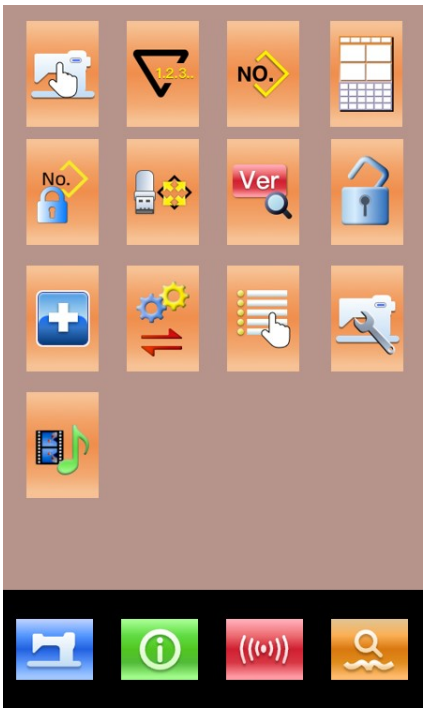
:Circular stitch

After selecting the sewing type, press  to finish. After pressing  , the data input interface for the selected sewing type is displayed.

Press  to exit the change sewing type interface, preserving the original sewing type.



8.6 Enter pattern editing

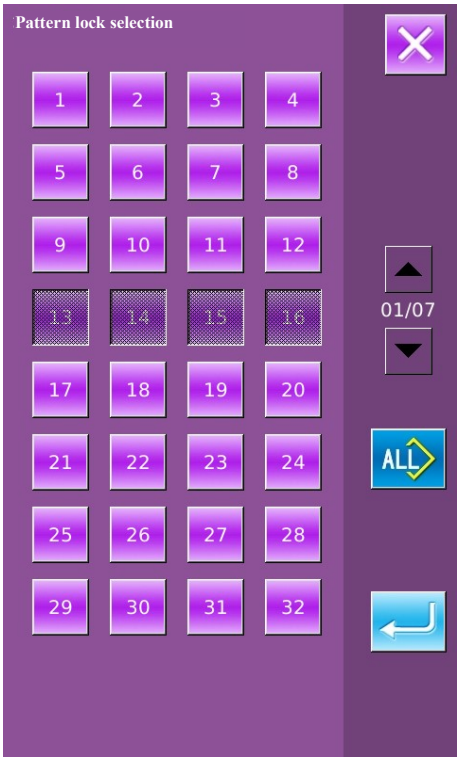


Press  , the following two icons will toggle between each other, select the appropriate mode, then press  to enter pattern editing mode. (Refer to Section 5.1 for description)

 : Sewing mode 

: Editing mode

8.7 Pattern lock settings



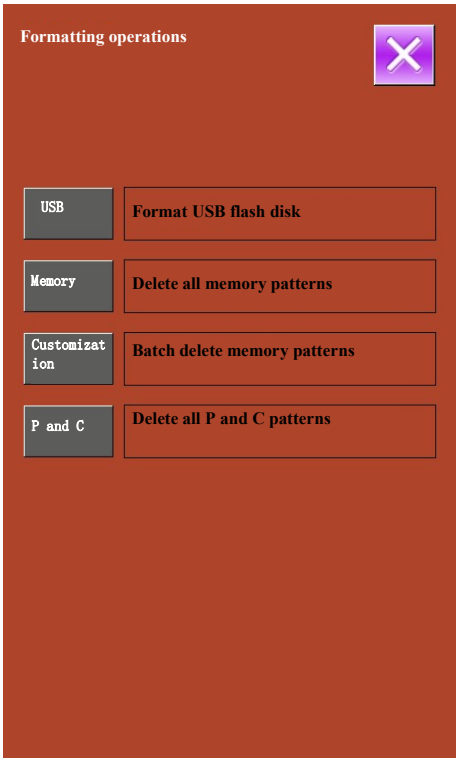
In setting mode level 1, press  to enter the pattern lock settings interface, which displays all patterns.

Numbers, 32 per page. If you want to lock a pattern,

Press the button corresponding to the pattern number. The selected pattern number will be displayed in a recessed manner.

Press  to save the settings. All selected patterns will be locked.

8.8 Formatting operations



Press  to enter the keyboard lock settings interface.

In this interface, you can perform:

USB flash disk formatting

Memory pattern formatting

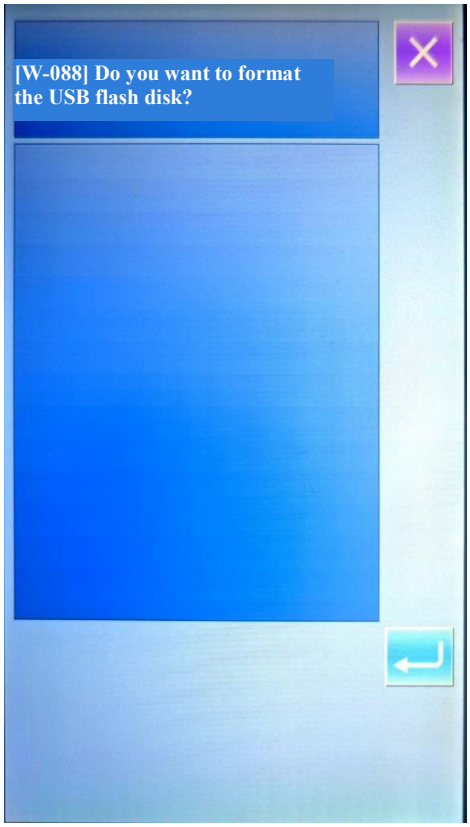
Custom formatting

P, C pattern formatting

Press the corresponding function button to enter the relevant interface.

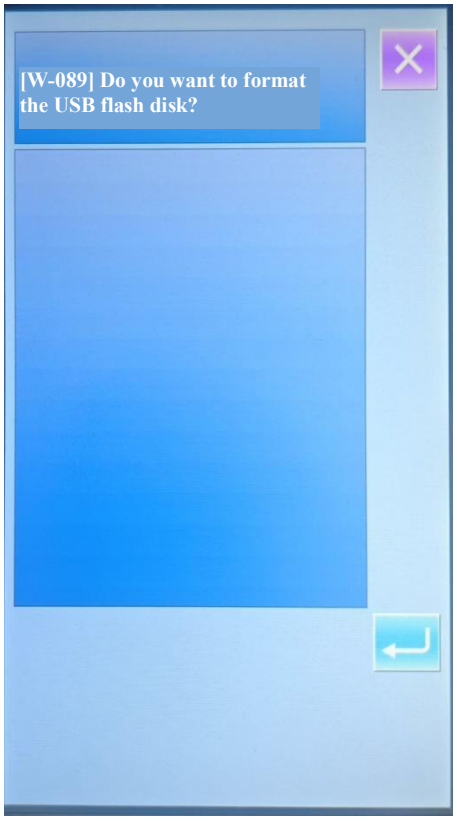
Press the exit button  to exit USB flash disk formatting

② Press the "USB" button to enter USB flash disk formatting



Press the enter button  to format all USB flash disk files.

Press the exit button  to exit USB flash disk formatting.



③ Press the "Memory" button to format memory patterns

Formatted patterns include:

Regular patterns, including basic patterns and user patterns

Circular stitch C pattern

Registered P patterns

Press the enter button  to format all. Press the exit button  to exit formatting.

※ Formatting memory patterns will delete all pattern files in memory. Please operate with caution!

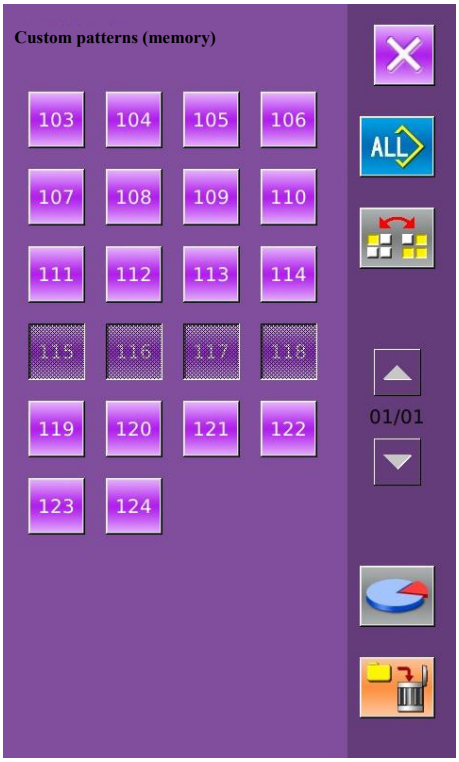
④ Press the "Custom" button to enter the batch deletion function. This interface displays all pattern files currently in memory. Press the corresponding button to complete the batch deletion function. Custom function operation:

a. Use the "Up Arrow" and "Down Arrow" buttons to scroll through pages

B. Use the following operations to select the pattern:

Press  to select all patterns.

Press  to invert selection.

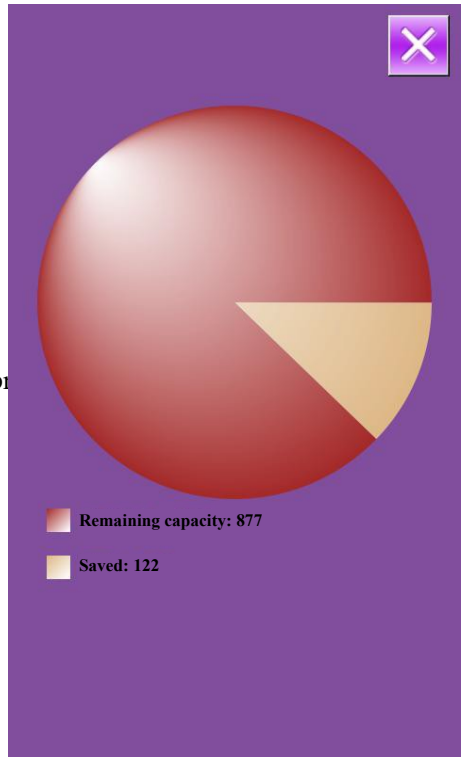


Click the pattern number button.

C. Press  to execute the batch deletion function

D. Press the exit button  to return to the formatting operation interface.

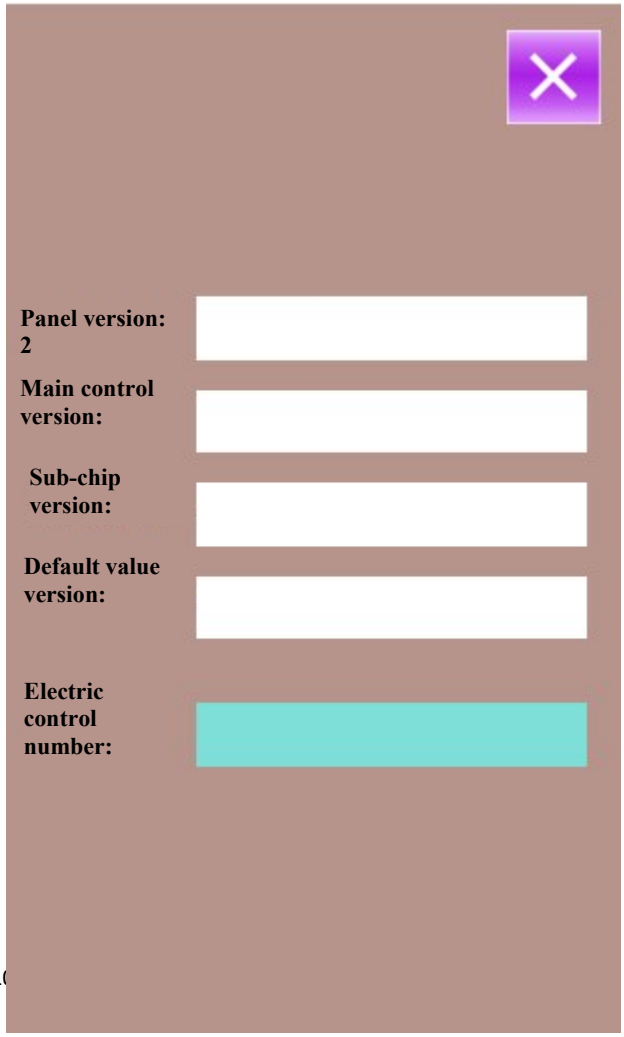
⑤ In the custom formatting interface, press the  button to display the space occupied by the pattern in memory and the size of the remaining space.



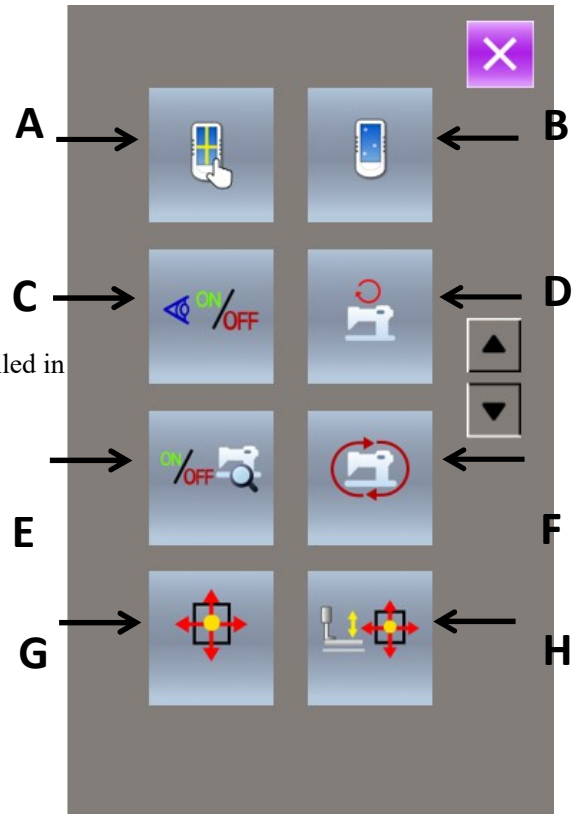
Press the exit button  to return to the pr

8.9 Software version query

In setup mode level 2, press  to check the system software version



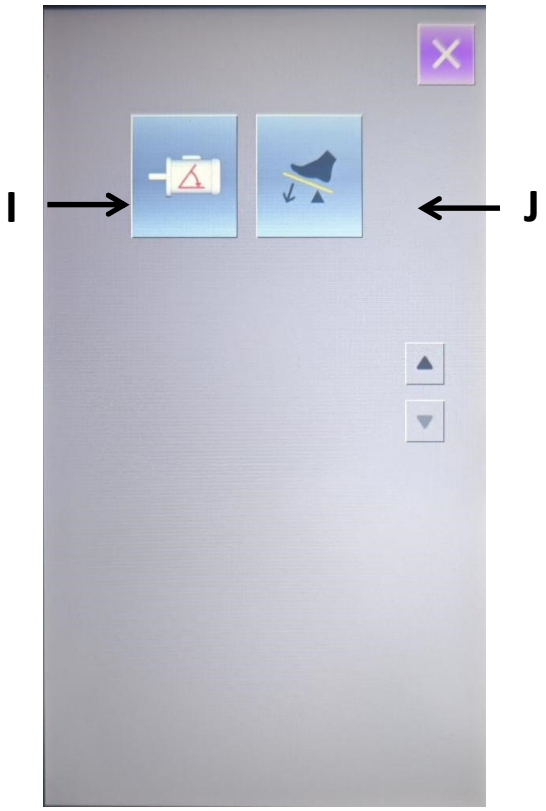
8.10 Detection mode



In setup mode level 2, press  to enter the detection mode interface (as shown in the right figure).

The function description of each icon is detailed in

No.	Name
A	Touching panel calibration
B	LCD screen detection
C	Input detection
D	Speed detection
E	Output detection
F	Continuous operation
G	Motor origin detection
H	Presser foot motor/origin sensor detection
I	Spindle detection
J	Pedal position adjustment



Press the  button to exit the detection mode interface.

(1) Touching panel calibration

A. In the detection mode interface

press  (I01 Touching Panel Calibration) button, prompt [Conform to enter touching panel calibration mode],

press  to enter the touching panel calibration interface (as shown in the right figure),

and press  to exit touching panel calibration state.

B. A 5-point calibration is required. It is recommended to use a stylus or similar tool to click the crosshair on the screen. After calibration, it will display if the operation was successful.

※ During the calibration process, ensure to follow the position marked by the cross cursor. Otherwise, the touching panel may not function properly after calibration.

(2) LCD detection

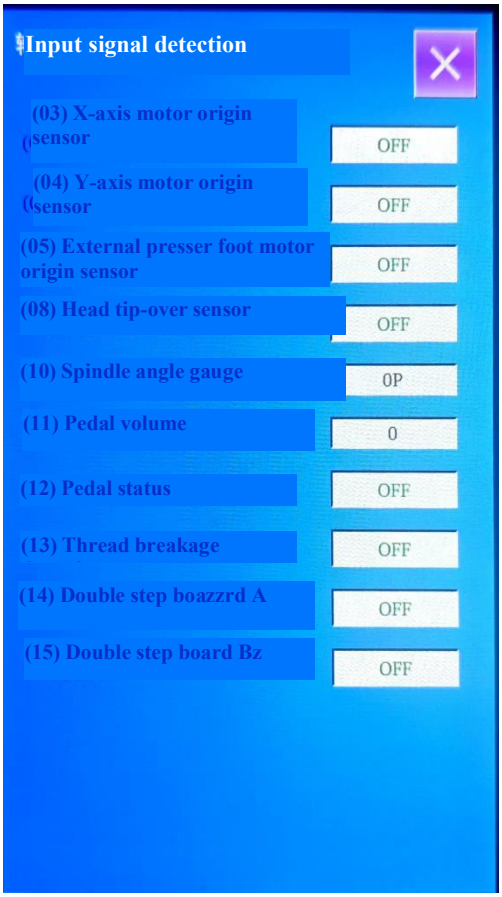
In the detection mode interface, press  (I02 LCD Detection) to enter the LCD detection interface (as shown in the right figure). In this state, detect

whether the LCD has discolored.

Tap on the interface to cycle through the colors: blue - black - red - green - white.

Press the exit button  to exit the LCD detection interface.

(3) Input signal detection method



In the detection mode interface, press  [03 Input Detection] to proceed.

Enter the input detection interface (as shown in the right figure). Confirm the input status of various switches and sensors here. ON: Indicates turned on OFF: Indicates turned off

03: X-axis motor origin sensor

04: Y-axis motor origin sensor

05: External presser foot motor origin sensor

06: Head tip-over sensor

10: Spindle angle

11: Pedal volume

12: Pedal status

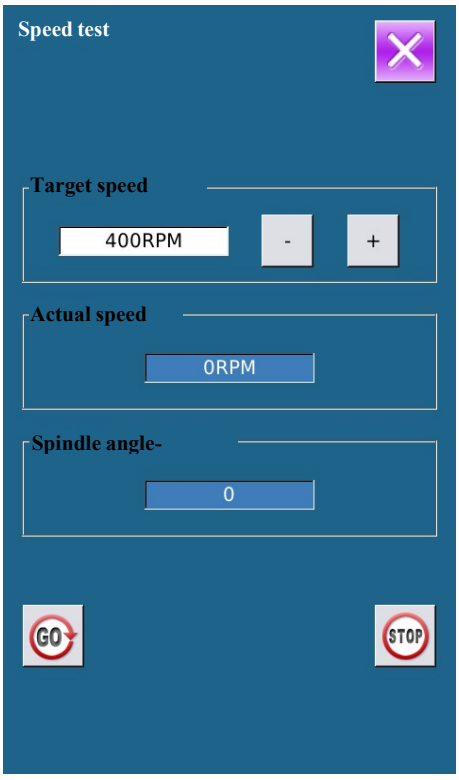
13: Thread breakage detection

14: Double pedal A

15: Double pedal B

(4) Speed measurement

① Display the speed measurement interface



In the detection mode interface, press  [07 Speed Measurement] to enter the speed measurement interface (as shown in the right figure). In this interface, the spindle motor speed can be detected.

Press  to exit the speed measurement interface.

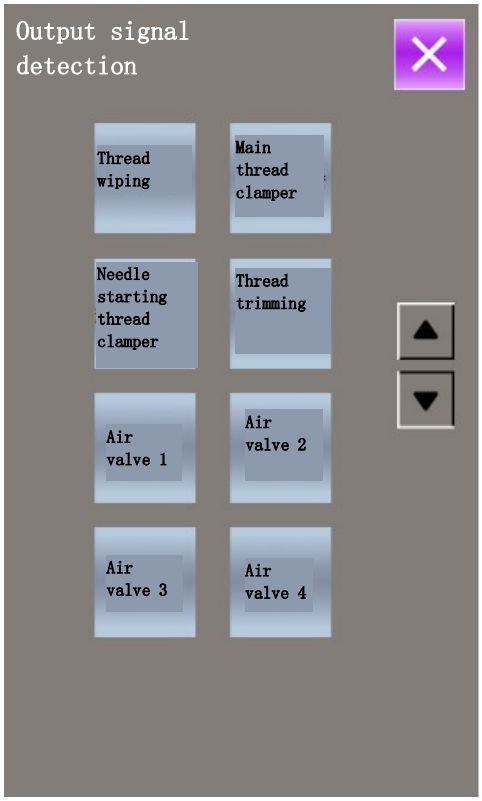
② Speed measurement setting

The spindle motor speed can be set by pressing the plus button "+" and the minus button "-". Press  and the spindle motor will rotate at the set speed. At this moment, the actual measured speed is displayed in the actual speed column on the

interface. Press 

to stop the machine.

(5) Output detection



In the detection mode interface, press  (I05 Output Detection) to enter the output detection interface (as shown in the right figure). The output states that can be detected in this interface include:

01: Thread loosening electromagnet detection

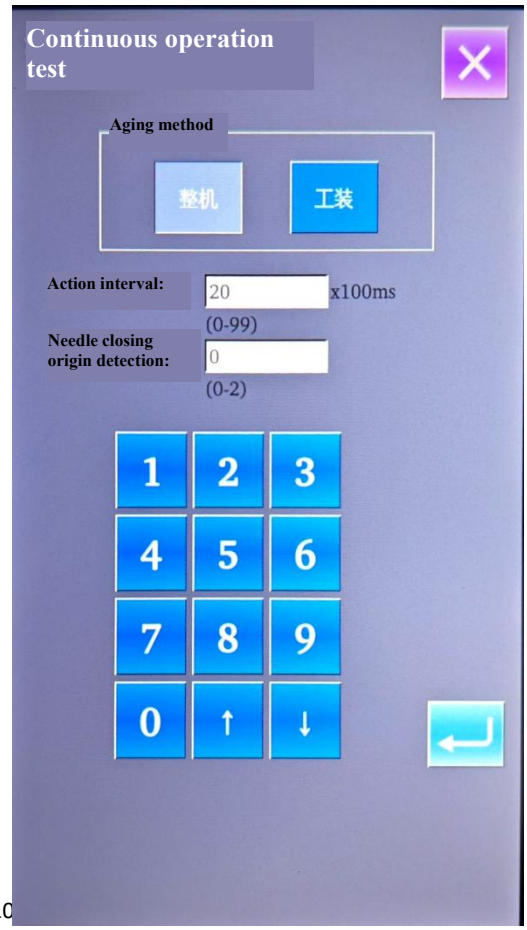
02: Upper thread electromagnet detection

Press  to exit the output detection interface.

※ Note: The sewing machine will perform corresponding actions.

(6) Continuous operation

① Display the continuous operation interface



In the detection mode interface, press  (I06 Continuous Operation) to enter the continuous operation interface (as shown in the right figure).

A: Action interval B: Needle closing origin detection

Press  to exit the continuous operation interface.

② Continuous operation setting

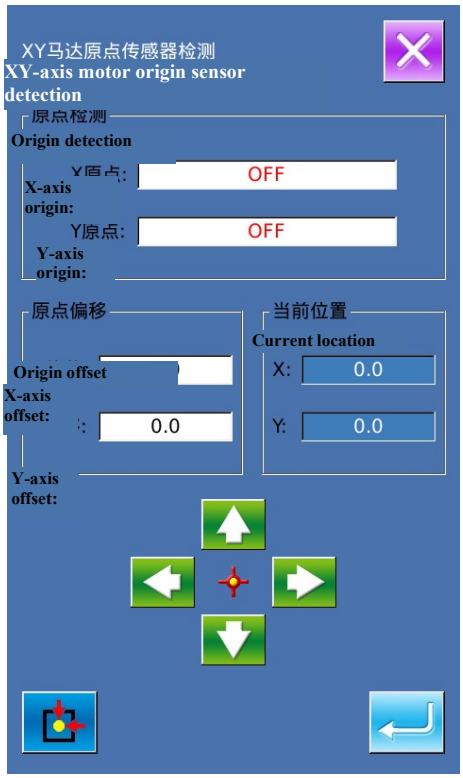
Click the "Action Interval" input box

and the "Needle Closing Origin Detection" input box under continuous operation mode, and enter the setting value using the numeric keypad to set the action interval time and needle closing origin detection.

Press the  button, then step on the foot pedal to start continuous operation. During continuous operation, you can pause using the pause switch, or stop continuous operation by stepping on the foot pedal or pressing the pause switch when the presser foot is raised after the action is completed.

(7) XY-axis motor origin sensor detection

In the detection mode interface, press  (I07 XY-axis Motor Origin Detection) to enter the XY-axis motor and sensor output detection interface (as shown in the right figure).



If the system does not enter the ready state after power-on and the origin search is not performed on this interface by pressing  , the motor can be directly driven to move via the direction keys, displaying the ON/OFF status of both XY-axis sensors, to detect whether the XY-axis motor drive and sensors are functioning properly;

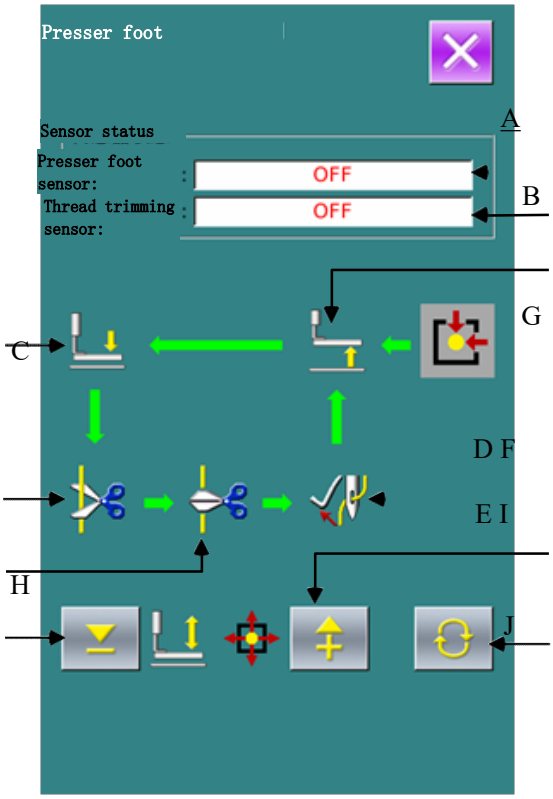
If the system has entered the ready state after power-on, or if the origin search has been performed on this interface by pressing  , then each time this I07 mode is entered, the origin search must first be performed by pressing the  button before the XY-axis motor can be driven to move via the direction buttons; in this case, it indicates the function for fine adjustment of the XY-axis origin.

The left X and Y coordinates display the origin offset values, and the right X and Y coordinates display the current position of the presser foot frame. Press  to set the current position

as the origin reference value.

(8) Pressed foot motor/origin sensor detection

Based on the presser foot origin sensor status, the A position shows the ON/OFF status of the presser foot origin sensor, and the B position shows the thread trimming sensor status.



The motor is driven by  pins pulse by pulse.

Additionally, press  to move the presser foot motor to the specified position, and the graphic for the position will be shaded.

A: Presser foot sensor B:

Thread trimming sensor C:

Presser foot down position D:

Thread separating completed

position E: Thread trimming

completion position F: Thread

wiping completion position G:

Presser foot raised position H:

Forward movement one step J:

Move to next position I:

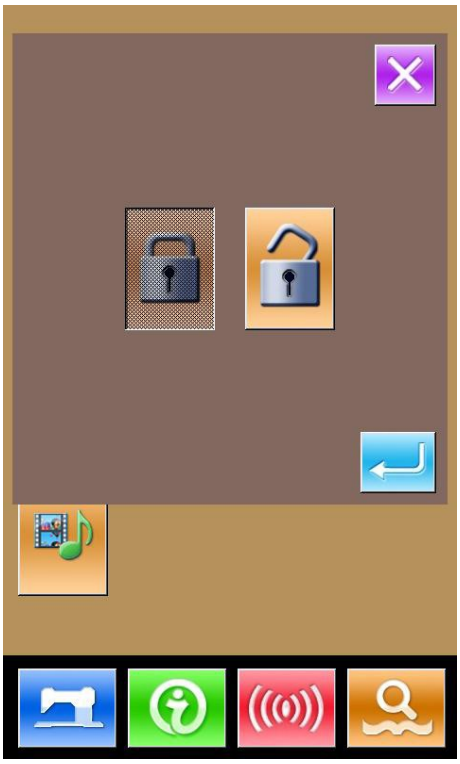
Reverse movement one step

Note: Use the start switch to activate the presser foot and thread trimmer.

It becomes effective after machine origin retrieval.

8.11 Locking keyboard operation

In setting mode level 2, press  to lock the keyboard setting interface.



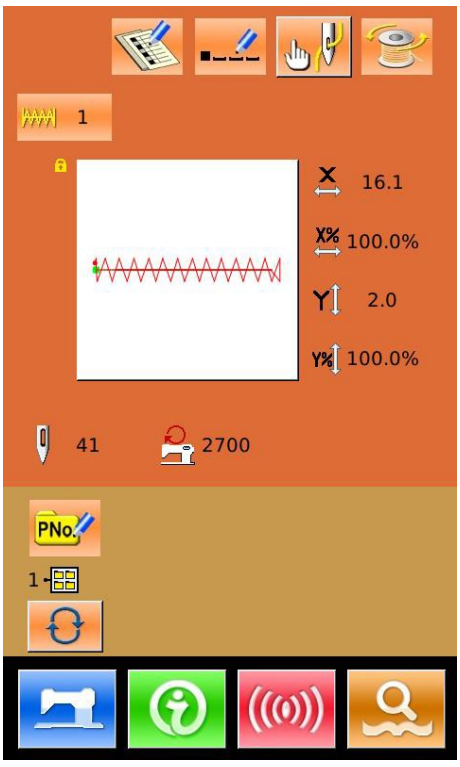
① Lock keyboard operation

 : Keyboard lock status not set  : Keyboard lock status set

Select  , press  to complete keyboard lock operation. Press the exit button  to leave keyboard lock operation.

② Keyboard lock status display

Close the parameter setting mode interface and return to data input interface, as shown in the figure on the right. You can see



An icon indicating keyboard lock status . Only usable icons are shown when keyboard is locked.

③ Keyboard lock range

1. Normal stitch data input interface:

1) Pattern registration

2) Pattern naming

3) Zoom in/out ratio setting

4) Maximum speed limit

5) P pattern registration

6) Pattern deletion

2. Normal stitch interface:

1) Frame shifting

2) Counter setting

3. P pattern input interface:

1) P pattern editing

2) P pattern copy

3) P pattern naming

4) Pattern deletion

4. P pattern sewing interface:

2) Counter setting

5. C pattern data input interface:

1) C pattern registration

2) C pattern copy

3) C pattern naming

4) C pattern editing

5) Pattern deletion

6. C pattern sewing interface:

2) Counter setting

7. Parameter setting mode:

1) Parameter Level 1

2) Parameter Level 2

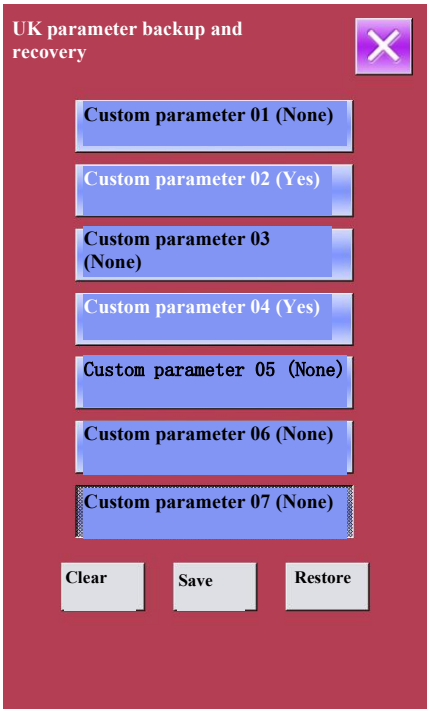
3) Counter editing

4) Detection mode

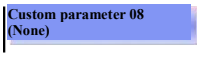
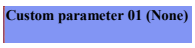
5) Pattern lock setting

8.12 Parameter backup settings

In setting mode level 3, press  to enter the parameter restore backup interface, as shown in the right figure:



Clear button: Clear all saved custom parameters. Save button: Save current parameters. Restore Button: Reload current parameters.

① Click any button among   to determine the parameter saving location, then click the "Save" button.

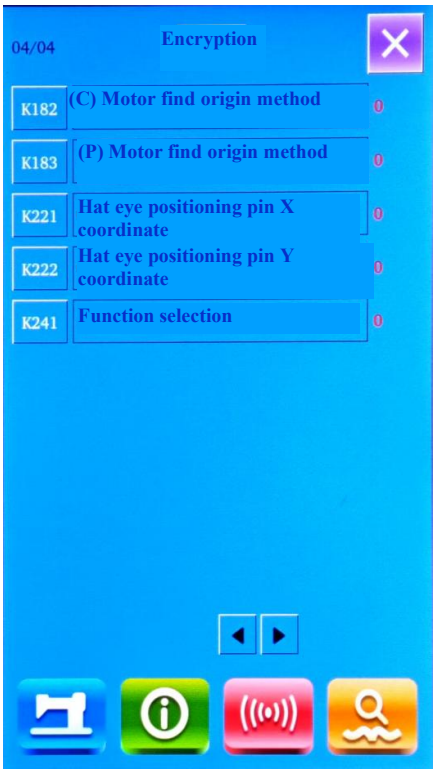
② Observe the display content of the "Custom Parameter xx (Yes/No)" button. "Yes" indicates user parameters are stored at that position. For example 

③ Select the custom parameter button with stored parameters. Press the "Restore" button to reload the corresponding parameter settings.

④ Press the "Clear" Button to clear all stored parameters.

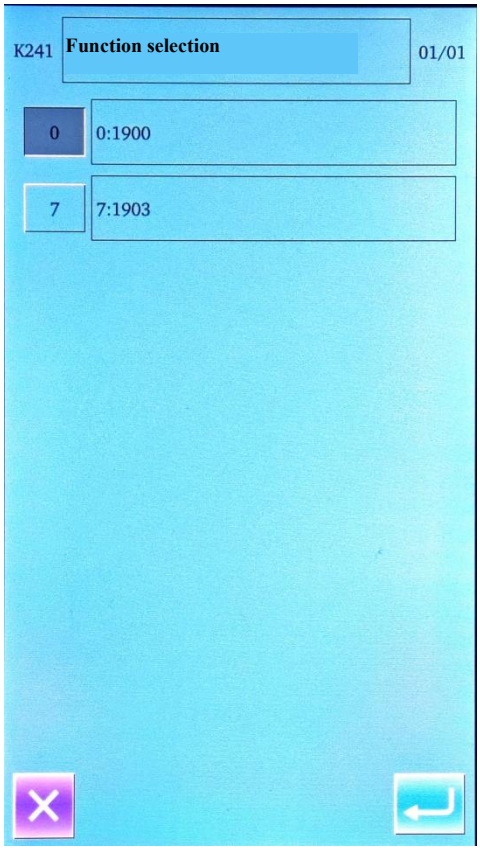
8.13 Button sewing machine model settings

① Parameter setting operation



In setting mode level 3, select  to enter the Level 2 parameter setting interface (as shown in the right figure). The operation refers to Level 1 or Level 2 parameter settings.
Select K241 to enter the next interface.

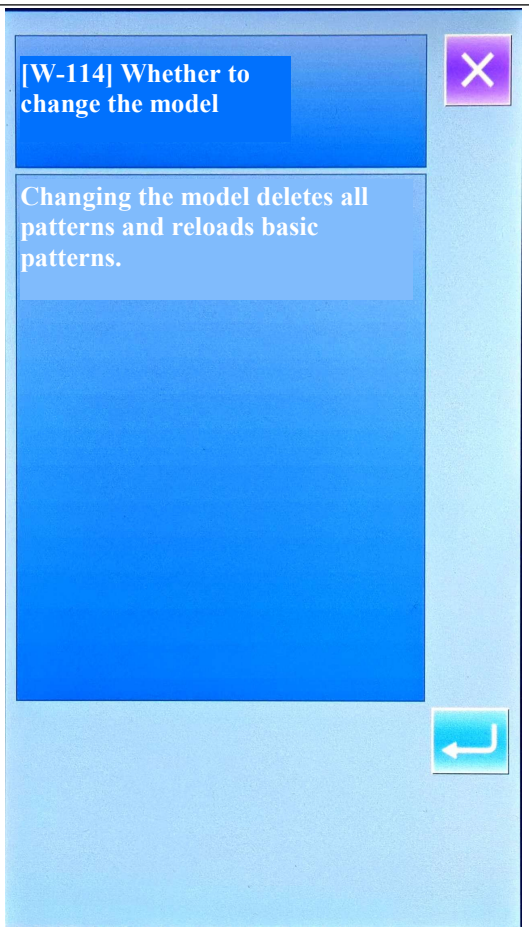
The figure on the right shows the model selection interface. Use the keyboard to enter a number. 7 indicates selection of the button sewing function. Press  to finalize the selection.



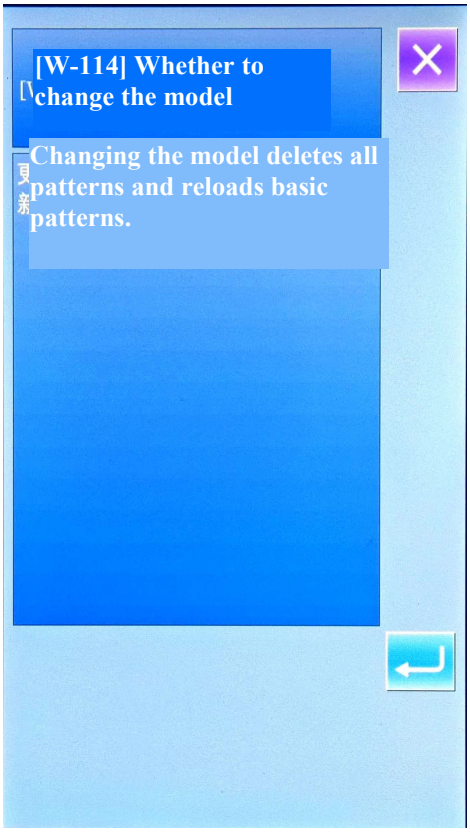
Note: Changing the model will clear stored patterns in the system and reload new model patterns. Backup patterns before changing.

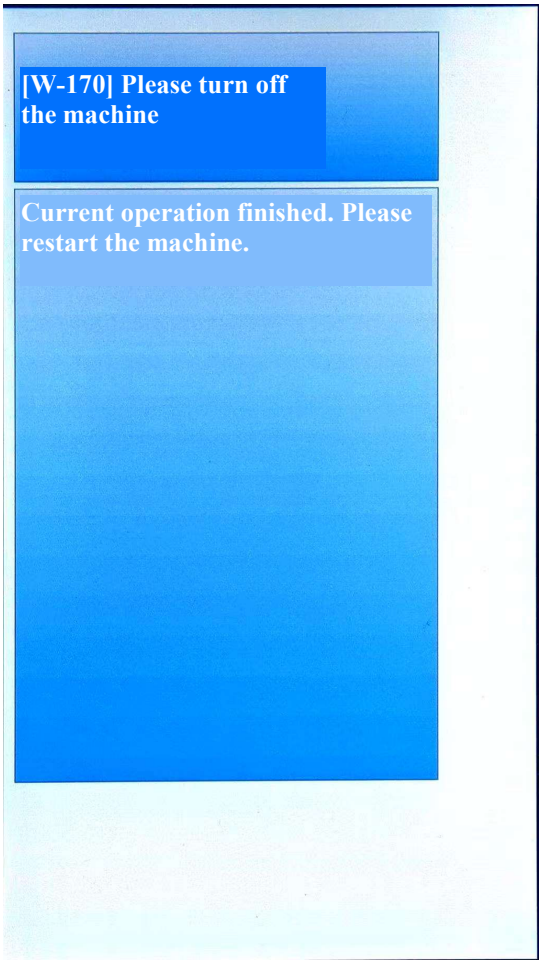
A prompt interface appears, as shown in the right figure. Press the exit button to cancel the setting.

Press to confirm and clear old model stored patterns.



After clearing old model patterns, turn off power, as shown in the right figure.

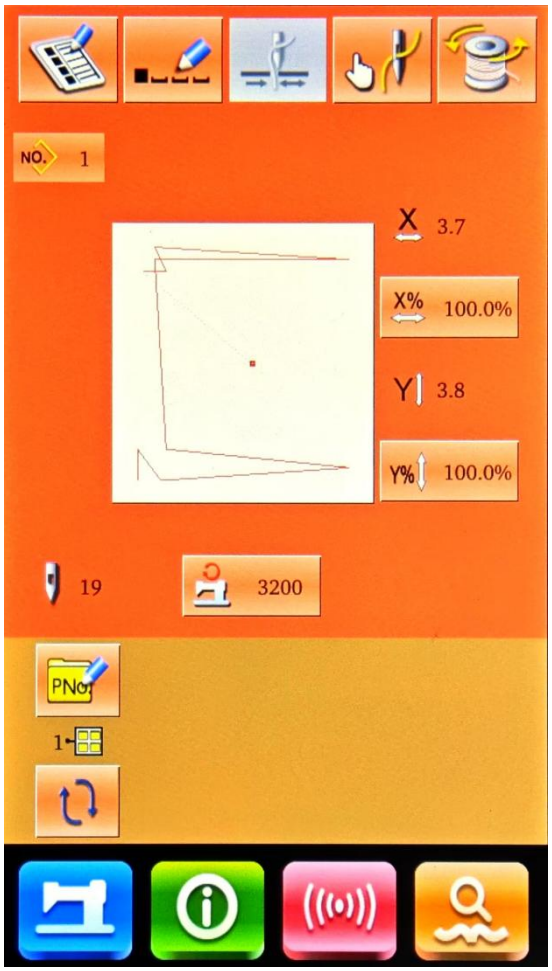




Restart post power-off prompts loading new model patterns. Press OK button  .

Successful base pattern loading leads system to N pattern main interface, as shown in the right figure.

Button sewing function configured successfully!



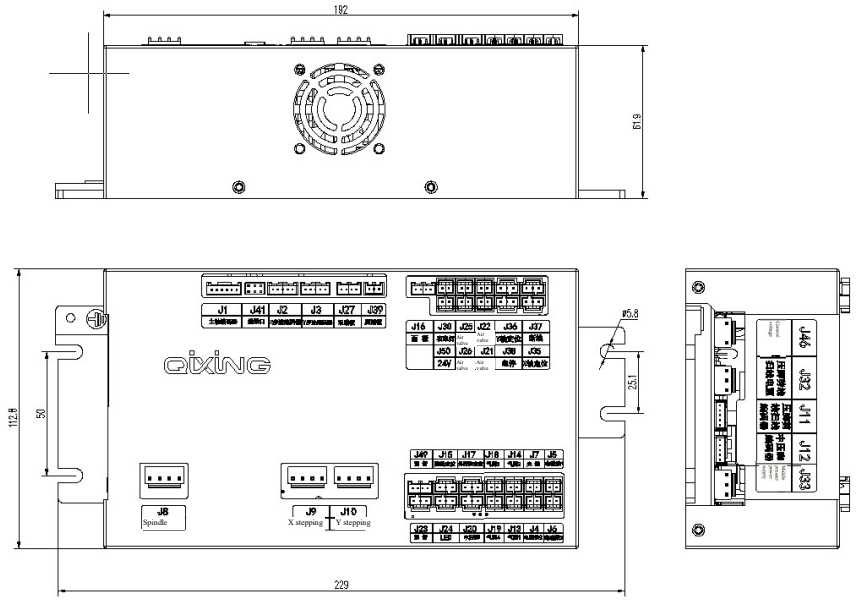
8.14 Pattern editing parameter settings

In setting mode level 3, press  to enter the pattern editing parameter setting interface. A recessed icon with a shadow effect indicates the function is activated, while a raised icon without a shadow effect indicates it is disabled. Adjust editing parameters as required and press the OK button  to confirm the settings.

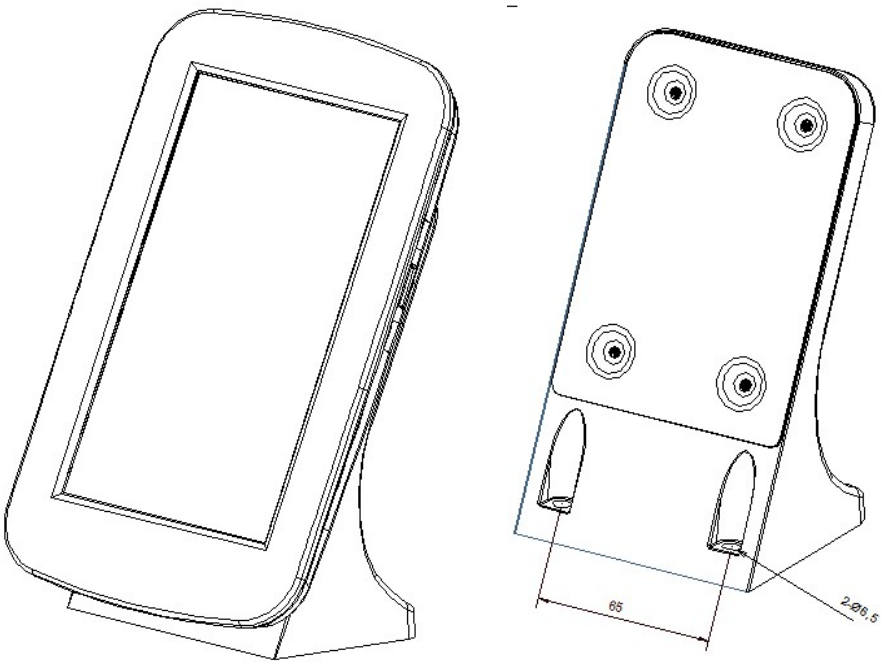
9 Principle of electric control system

9.1 Control system components

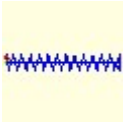
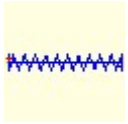
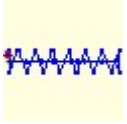
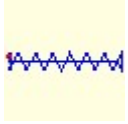
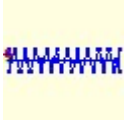
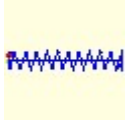
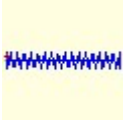
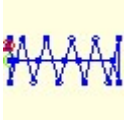
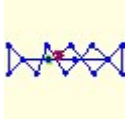
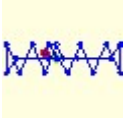
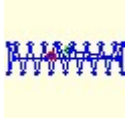
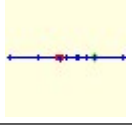
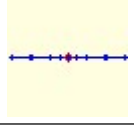
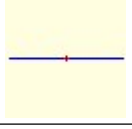
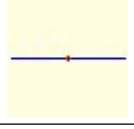
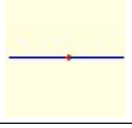
9.1.1 Electric control box installation dimensions

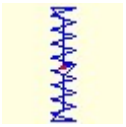
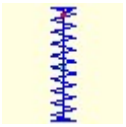
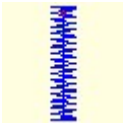


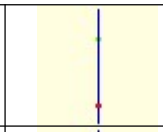
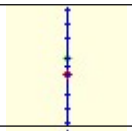
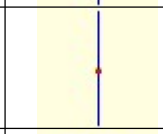
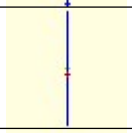
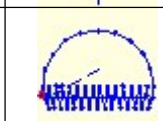
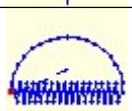
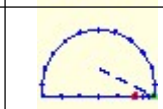
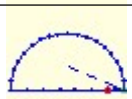
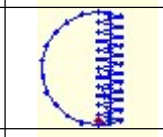
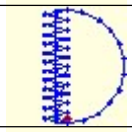
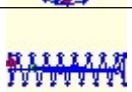
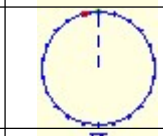
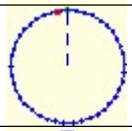
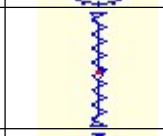
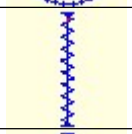
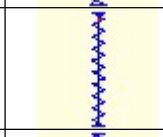
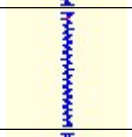
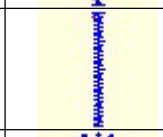
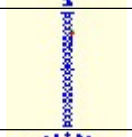
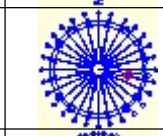
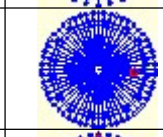
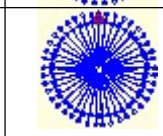
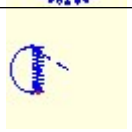
9.1.2 Operating head installation dimensions

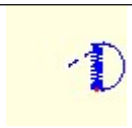
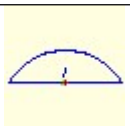
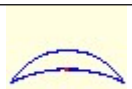
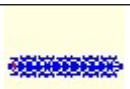
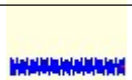
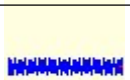
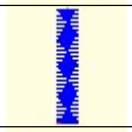
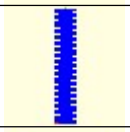
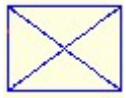
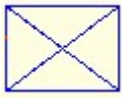
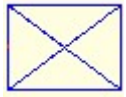
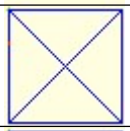
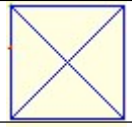
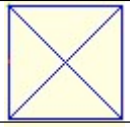
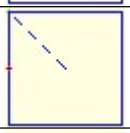
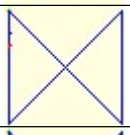
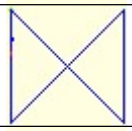
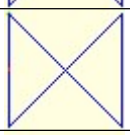
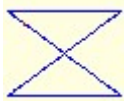
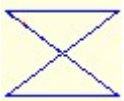


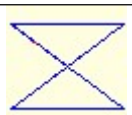
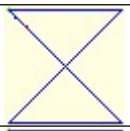
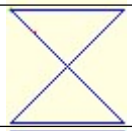
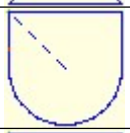
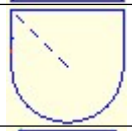
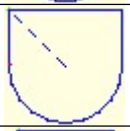
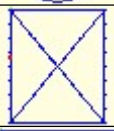
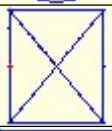
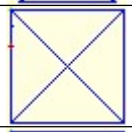
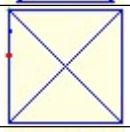
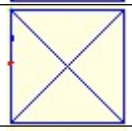
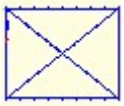
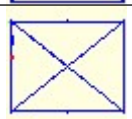
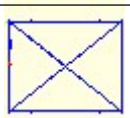
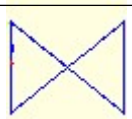
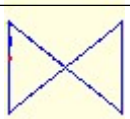
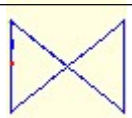
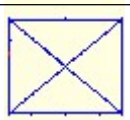
9.2 1900A Tacking Machine Pattern List

NO.	Sewing pattern	Number of stitches	Length × Width (mm)	NO.	Sewing pattern	Number of stitches	Length × Width (mm)
1		41	16.1×2	2		41	10.2×2
3		41	16×2.4	4		41	24×3
5		27	10.1×2	6		27	16×2.4
7		35	10.1×2	8		35	16×2.4
9		55	24×3	10		63	24×3
11		20	6.1×2.4	12		27	6.2×2.4
13		35	6.1×2.4	14		14	8×2
15		20	8×2	16		27	8×2
17		20	10×0	18		27	10×0
19		27	25.2×0	20		35	24.8×0
21		40	25.2×0	22		43	35×0

23		27	4×20		24		35	4×20
25		41	4×20		26		55	4×20

27		17	0×20		28		20	0×10
29		20	0×20		30		27	0×20
31		51	10.1×7		32		62	12.1×7
33		23	10.2×6		34		30	12×6
35		47	7×10		36		47	7×10
37		89	24×3		38		27	8×2
39		25	11.8×12		40		45	12×12
41		28	2.4×20		42		38	2.4×25
43		38	2.4×25		44		57	2.4×30
45		75	2.4×30		46		41	2.4×30
47		89	8×8		48		98	8×8
49		147	8×8		50		163	8×8
51		110	7.9×7.9		52		120	7.9×7.9
53		130	7.9×7.9		54		51	12.4×10.2

55		50	12.4×10.2		56		52	21×6
57		57	21×6		58		102	19×3
59		115	40×5		60		115	40×5
61		93	5×30		62		109	5×30
63		108	40×30		64		80	40×30
65		64	40×30		66		96	30×30
67		76	30×30		68		60	30×30
69		52	40×30		70		40	40×30
71		32	40×30		72		44	30×30
73		36	30×30		74		28	30×30
75		60	40×30		76		48	40×30
77		36	40×30		78		56	30×30
79		44	30×30		80		36	30×30
81		67	40×30		82		51	40×30

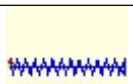
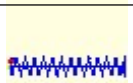
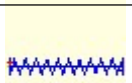
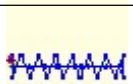
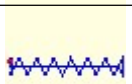
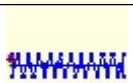
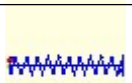
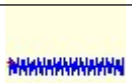
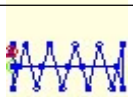
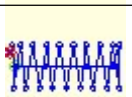
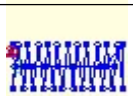
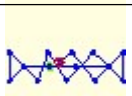
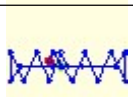
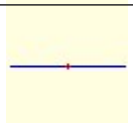
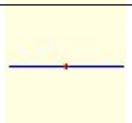
83		39	40×30		84		55	30×30
85		35	30×30		86		42	30×30
87		32	30.1×30		88		26	30×30
89		74	20×24		90		54	20×24
91		65	20×20		92		49	20×20
93		39	20×20		94		63	25×20
95		51	25×20		96		45	25×20
97		42	25×20		98		33	25×20
99		27	25×20		100		88	30×25

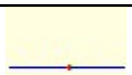
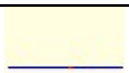
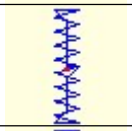
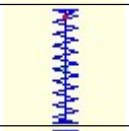
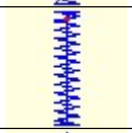
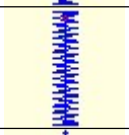
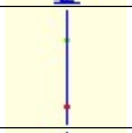
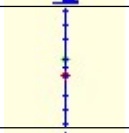
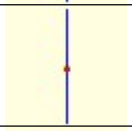
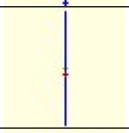
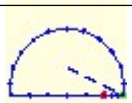
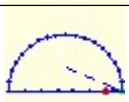
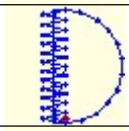
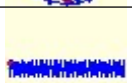
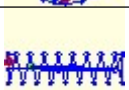
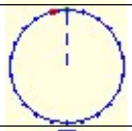
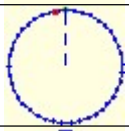
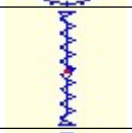
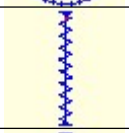
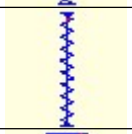
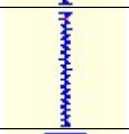
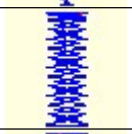
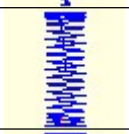
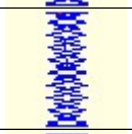
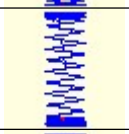
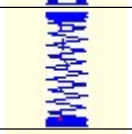
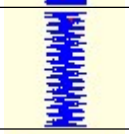
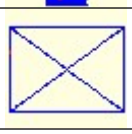
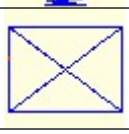
9.3 Button Sewing Machine Pattern List

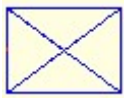
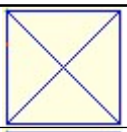
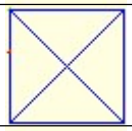
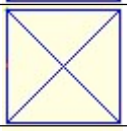
Pattern number	Sewing pattern	Stitching (pcs)	Standard sewing length X(mm)	Standard sewing length Y(mm)	Pattern number	Sewing pattern	Stitching (pcs)	Standard sewing length X(mm)	Standard sewing length Y(mm)
1·34		6-6	3.4	3.4	18·44		6	3.4	0
2·35		8-8			19·45		8		
3		10-10			20		10		
4		12-12			21		12		
5·36		6-6			22		16		
6·37		8-8			23·46		6	0	3.4
7		10-10			24		10		
8		12-12			25		12		
9·38		6-6			26·47		6-6	3.4	3.4
10·39		8-8			27		10-10		
11		10-10			28·48		6-6		
12·40		6-6			29		10-10		
13·41		8-8			30·49		5-5-5	3.0	2.5
14		10-10			31		8-8-8		
15·42		6-6			32·50		5-5-5		

16·43		8-8			33		8-8-8		
17		10-10							

9.4 1906A Tack Pattern List

NO.	Sewing pattern	Number of stitches	Length × Width		NO.	Sewing pattern	Number of stitches	Length × Width
			(mm)					(mm)
1		41	16.1×2		2		41	10.2×2
3		41	16×2.4		4		41	24×3
5		27	10.1×2		6		27	16×2.4
7		35	10.1×2		8		35	16×2.4
9		55	24×3		10		63	24×3
11		20	6.1×2.4		12		27	6.2×2.4
13		35	6.1×2.4		14		14	8×2
15		20	8×2		16		27	8×2
17		20	10×0		18		27	10×0
19		27	25.2×0		20		35	24.8×0

21		40	25.2×0	22		43	35×0
23		27	4×20	24		35	4×20
25		41	4×20	26		55	4×20
27		17	0×20	28		20	0×10
29		20	0×20	30		27	0×20
31		51	10.1×7	32		62	12.1×7
33		23	10.2×6	34		30	12×6
35		47	7×10	36		47	7×10
37		89	24×3	38		27	8×2
39		25	11.8×12	40		45	12×12
41		28	2.4×20	42		38	2.4×25
43		38	2.4×25	44		57	2.4×30
45		141	10×30	46		122	10×30
47		97	10×30	48		109	10.1×30
49		122	10.1×30	50		265	10×30
51		108	40×30	52		80	40×30

53		64	40×30		54		96	30×30
55		76	30×30		56		60	30×30
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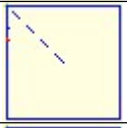
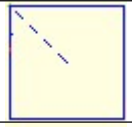
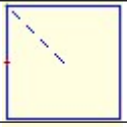
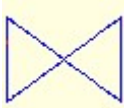
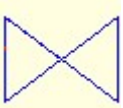
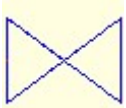
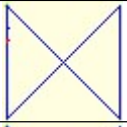
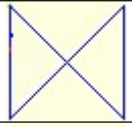
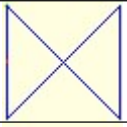
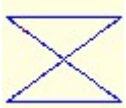
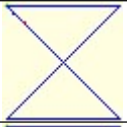
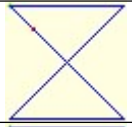
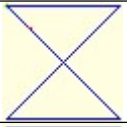
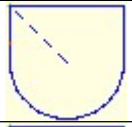
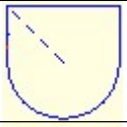
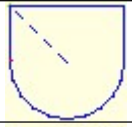
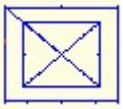
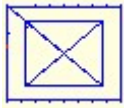
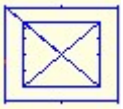
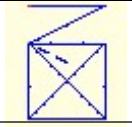
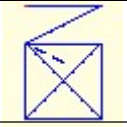
59		32	40×30		60		44	30×30
61		36	30×30		62		28	30×30
63		60	40×30		64		48	40×30
65		36	40×30		66		56	30×30
67		44	30×30		68		36	30×30
69		67	40×30		70		51	40×30
71		39	40×30		72		55	30×30
73		43	30×30		74		35	30×30
75		42	30×30		76		32	30.1×30
77		26	30×30		78		103	30×25
79		82	30×25		80		64	30×25
81		80	20×30		82		60	20×30
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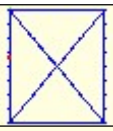
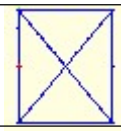
85		74	20×24		86		54	20×24
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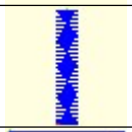
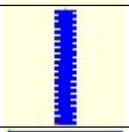
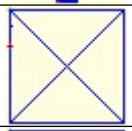
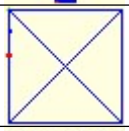
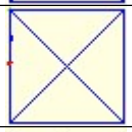
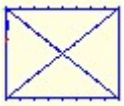
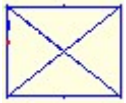
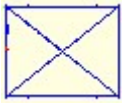
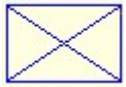
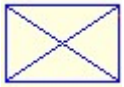
89		93	5×30		90		109	5×30
91		65	20×20		92		49	20×20
93		39	20×20		94		63	25×20
95		51	25×20		96		45	25×20
97		42	25×20		98		33	25×20
99		111	60×40		100		91	60×40

9.5 Alarm Information List

Fault number	Fault name	Reset method
E-001	System overvoltage	① Is the grid voltage higher than AC260V; ② If it is self generating power supply, please reduce the power of the generator; ③ If it still cannot work normally, please replace the control box and notify the after-sales service.
E-002	System undervoltage	① Whether to insert low voltage; ② Restore default settings ③ If it still cannot work normally, please replace the control box and notify the after-sales service.
E-003	Communication failed	① Turn off system power, verify display screen connections for any looseness or detachment, restore to normal and restart. Restart the system. ② Turn off the system power, disconnect the electric control box and connect only the power cord. Verify if alarm E03 persists.
E-003_2	MCU2 communication is abnormal	

		If alarm E03 persists, replace the control box and notify after-sales service.
E-005	Poor connection of speed controller	① Check whether the connector of the speed controller is loose or detached, restore it to normal, and restart the system. ② If it still cannot work normally, please replace the control box or speed controller and notify the after-sales service.
E-007	Arm shaft motor stalled	① Turn off the power and verify if the handwheel rotates smoothly (manually turn the handwheel). If not, inspect mechanical components; ② Turn off the power supply, check whether the motor power interface is loose, plug it in and restart; ③ Check whether the upper stop needle position is correct. If not, adjust the upper positioning position; ④ If it still cannot work normally, please replace the control box or arm shaft motor and notify the after-sales service.
E-009	When starting up to locate, the Z signal of the spindle motor encoder is abnormal	① Turn off the system power supply, check whether the encoder interface of the arm shaft motor is loose or off, and restart the system after it is restored to normal. ② Check whether the zero correction setting of the motor is correct; Reset the zero correction of the motor; ③ Check whether there is oil on the encoder code disc. If yes, please clean it up; ④ If it still cannot work normally, please replace the control box or arm shaft motor and notify the after-sales service.
E-010	Electromagnet overcurrent protection	① Remove the electromagnet interface, if alarm E10 occurs, replace the control box and notify after-sales service. ② If there is no alarm after removing the electromagnet interface, please plug it back in. 1) Front-pedal the pedal to allow the sewing machine to perform thread tension and bar tack sewing. If an alarm occurs, please turn off the front and rear bar tacks, restart the electric control, and front-pedal again. If an alarm occurs, please turn off the thread tension function and restart the electric control, and front-pedal again. If no alarm occurs, please replace the tension disco. 2) Front-pedal the pedal to allow the sewing machine to perform thread tension and bar tack sewing. If there is an alarm, please turn off the front and rear bar tacks, restart the electric control, and front-pedal again. If there is no alarm, please turn off the thread tension function and restart the electric control, and turn on the front bar tack sewing function, and front-pedal again. If there is an alarm, please replace the backtacking electromagnet. 3) Front-pedal the pedal to allow the sewing machine to perform thread tension and bar tack sewing. If there is no alarm, perform half reverse pedaling and lift the presser foot. If there is an alarm, replace the presser foot electromagnet; 4) Front-pedal the pedal to allow the sewing machine to perform thread tension and bar tack sewing, and the presser foot is lifted by half reverse pedaling. If there is no alarm,

		please perform full reverse pedaling and thread trimming, and If there is an alarm, please replace the thread trimming electromagnet;
E-011	Arm shaft motor encoder Z signal is abnormal	① Turn off the system power supply, check whether the encoder interface of the arm shaft motor is loose or off, and restart the system after it is restored to normal. ② Check whether the zero correction setting of the motor is correct; Reset the zero correction of the motor, and check whether there is oil on the encoder code disc. If yes, please clean it up; ③ If it still cannot work normally, please replace the control box or arm shaft motor and notify the after-sales service.
E-014	Arm shaft motor encoder AB signal is abnormal	① Turn off the system power supply, check whether the encoder interface of the arm shaft motor is loose or off, and restart the system after it is restored to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ② If it still cannot work normally, please replace the control box or arm shaft motor and notify the after-sales service.
E-015	Arm shaft motor overcurrent error	① Please check for poor contact in the motor power cord; ② Please check whether the motor power cord has been crushed; ③ Please replace the control box or arm shaft motor and notify the after-sales service.
E-042	EEPROM read and write failure	① Restart after restoring factory settings; ② If it still cannot work normally, please replace the control box and notify the after-sales service.
E-046	Watchdog resetting	① Restart after restoring factory settings; ② If it still cannot work normally, please replace the control box and notify the after-sales service.
E-046_2	MCU2 watchdog resetting	
E-070_2	MCU2 program exception, please reprogram	Please cut off the power supply and then turn it back on.
E-082	X-axis stepping motor overcurrent	① Turn off the system power supply and observe if the X-axis stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the interface of X-axis stepping motor is loose or falling off, and restart the system after it returns to normal. ② If it still cannot work normally, please replace the control box or X-axis stepping motor and notify the after-sales service.
E-082_2	Y-axis stepping motor overcurrent	① Turn off the system power supply and observe if the Y-axis stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the interface of Y-axis stepping motor is loose or falling off, and restart the system after it returns to normal. ② If it still cannot work normally, please replace the control box or Y-axis stepping motor and notify the after-sales service.
E-082_3	Middle presser foot stepping motor overcurrent	① Turn off the system power supply and observe if the middle presser foot stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the interface of the middle presser foot

		stepping motor is loose or detached, restore it to normal, and restart the system. ② If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.
E-082_4	External presser foot stepping motor overcurrent	① Turn off the system power supply and observe if the external presser foot stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the external presser foot stepping motor interface is loose or falling off, and restart the system after it is restored to normal. ② If it still cannot work normally, please replace the control box or external presser foot stepping motor and notify the after-sales service.
E-084	Z signal of X-axis stepping motor encoder is abnormal	① Turn off the system power supply and observe if the X-axis stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the encoder interface of X-axis stepping motor is loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or X-axis stepping motor and notify the after-sales service.
E-084_2	Z signal of Y-axis stepping motor encoder is abnormal	① Turn off the system power supply and observe if the Y-axis stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the encoder interface of Y-axis stepping motor is loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or Y-axis stepping motor and notify the after-sales service.
E-084_3	Z signal of middle presser foot stepping motor encoder is abnormal	① Turn off the system power supply and observe if the middle presser foot stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the encoder interface of the middle presser foot stepping motor is loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.

E-084_4	Z signal of external presser foot stepping motor encoder is abnormal	① Turn off the system power supply and observe if the external presser foot stepping motor is stuck. If it gets stuck, first eliminate the mechanical failure of the head. If normal, check whether the encoder interface of the external presser foot stepping motor is loose or detached, restore it to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or external presser foot stepping motor and notify the after-sales service.
E-085	AB signal of x-axis stepping motor encoder is abnormal	① Turn off the system power supply, check whether the X-axis stepping motor encoder interface is loose or detached, restore it to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or X-axis stepping motor and notify the after-sales service.
E-085_2	AB signal of Y-axis stepping motor encoder is abnormal	① Turn off the system power supply, check whether the Y-axis stepping motor encoder interface is loose or detached, restore it to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or Y-axis stepping motor and notify the after-sales service.
E-085_3	AB signal of middle presser foot stepping motor encoder is abnormal	① Turn off the system power supply, check whether the interface of the middle presser foot stepping motor encoder is loose or detached, restore it to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.
E-085_4	AB signal of external presser foot stepping motor encoder is abnormal	① Turn off the system power supply, check whether the encoder interface of the external presser foot stepping motor is loose or falling off, and restart the system after restoring them to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control

		box or external presser foot stepping motor and notify the after-sales service.
E-086	X-axis stepping motor failed to start	① Turn off the system power supply, check whether the X-axis stepping motor power cord interface and encoder interface are loose or detached, restore them to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or X-axis stepping motor and notify the after-sales service.
E-086_2	Y-axis stepping motor failed to start	① Turn off the system power supply, check whether the power cord interface and encoder interface of Y-axis stepping motor are loose or falling off, and restart the system after it returns to normal. Restore them to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery;
E-086_3	Middle presser foot stepping motor failed to start	① Turn off the system power supply, check whether the power cord interface and encoder interface of the middle presser foot stepping motor are loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.
E-086_4	External presser foot stepping motor failed to start	① Turn off the system power supply, check whether the power cord interface and encoder interface of the external presser foot stepping motor are loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or external presser foot stepping motor and notify the after-sales service.
E-087	X-axis stepping motor stalled	① Turn off the system power supply, check whether the X-axis stepping motor power cord interface and encoder interface are loose or detached, restore them to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes,

		please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or X-axis stepping motor and notify the after-sales service.
E-087_2	Y-axis stepping motor stalled	① Turn off the system power supply, check whether the power cord interface and encoder interface of Y-axis stepping motor are loose or falling off, and restart the system after it returns to normal. Restore them to normal, and restart the system. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or Y-axis stepping motor and notify the after-sales service.
E-087_3	Middle presser foot stepping motor stalled	① Turn off the system power supply, check whether the power cord interface and encoder interface of the middle presser foot stepping motor are loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.
E-087_4	External presser foot stepping motor stalled	① Turn off the system power supply, check whether the power cord interface and encoder interface of the external presser foot stepping motor are loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or external presser foot stepping motor and notify the after-sales service.
E-086_3	Middle presser foot stepping motor failed to start	① Turn off the system power supply, check whether the power cord interface and encoder interface of the middle presser foot stepping motor are loose or falling off, and restart the system after it returns to normal. ② Check whether the grating is installed correctly (whether the grating screw is fastened and whether the grating is in the center position of the encoder head); ③ Check whether there is oil on the grating code disc. If yes, please clean it up and restart the system after recovery; ④ If it still cannot work normally, please replace the control box or middle presser foot stepping motor and notify the after-sales service.

9.6 Information Prompt List

Information number	Information name	Sub-information content
W-001	Emergency stop	Check the machine
W-003	Flipping protection	
W-005	Fan stalled	Check the fan after shutting down the machine
W-006	Pedal failed to return to center position	
W-008	Thread breakage	You can cancel the warning on the warning pop-up interface and promptly restore the connection to continue operating the machine
W-009	Wrong password	Please enter again
W-010	USB not inserted	
W-011	The set value is too large	Please enter a value within the range.

Information number	Information name	Sub-information content
W-012	Set value is too small	Please enter a value within the range.
W-030	Touching panel calibration successful	Please turn off the power and restart
W-031	Confirm to enter the touching panel calibration procedure	Confirm? Yes: Enter No: X
W-032	Confirm to clear alarm records	Confirm? Yes: Enter No: X
W-038	Pattern count is full	Please delete the unused patterns before performing the operation
W-039	Whether to overwrite the pattern	Confirm?Yes: Enter No: X
W-041	Upgrade failed	
W-042	Upgrade succeeded	Please shut down/please restart the machine
W-043	Pattern already exists	Overwrite operation cannot be performed!
W-044	The electric control and panel model numbers are inconsistent	Press the reset button to reset the panel and save the model
W-045	The pattern is referenced and cannot be deleted!	Please remove the reference in the P pattern or C pattern
W-046	Do you want to delete the selected files?	Confirm?Yes: Enter No: X
W-047	Load factory pattern	There are no patterns in memory; the factory default pattern needs to be loaded
W-049	Number does not exist	
W-050	P pattern does not exist	Please create a P pattern first
W-051	The needle replacement setting has been reached. Please replace the needle	Confirm?Yes: Enter No: X
W-052	The factory default value table is inconsistent	
W-053	No default value table available	
W-054	The oil change setting time has been reached. Please change the oil	Confirm?Yes: Enter No: X
W-055	Are you sure you want to clear the needle replacement count?	Confirm?Yes: Enter No: X
W-056	Are you sure you want to clear the oil change count value?	Confirm?Yes: Enter No: X
W-057	Are you sure you want to clear the cleaning time count value?	Confirm?Yes: Enter No: X
W-058	Are you sure you want to clear the production management count value?	Confirm?Yes: Enter No: X
W-059	The cleaning time setting has been reached. Please clean the machine	Confirm?Yes: Enter No: X
W-065	Edit new pattern	

W-066	Do you want to return to sewing mode?	
W-067	Do you want to restore all settings?	
W-068	Do you want to restore the selected items?	

Information number	Information name	Sub-information content
W-070	The sewing counter has reached the set value	Please press the OK button to clear
W-071	The piece counter has reached the set value	Please press the OK button to clear
W-072	Succeeded	The current operation has been successfully executed!
W-073	Failed	
W-078	Pattern data cannot be deleted	The selected sewing data is being used
W-088	Do you want to format the USB flash disk?	
W-089	Do you want to format the memory?	
W-091	This function cannot be selected	
W-092	Specified shape points are repeated or identical shape points exist	
W-093	Confirm automatic insertion of thread trimming	
W-094	Delete the currently edited pattern graphic	Confirm?Yes: Enter No: X
W-095	Delete elements	Confirm?Yes: Enter No: X
W-096	Execute, confirm?	Confirm?Yes: Enter No: X
W-097	Delete machine control command?	Confirm?Yes: Enter No: X
W-105	Enter Boot mode	
W-106	MCU1 burnprocess error	
W-107	MCU2 burnprocess error	
W-109	Boot communication abnormality of MCU1	
W-110	Boot communication abnormality of MCU2	
W-112	MCU1 has no APP program	
W-113	MCU2 has no APP program	
W-114	Do you want to change the model?	After changing the model, all patterns will be deleted, and basic patterns will be reloaded.
W-116	Modification of basic patterns is prohibited!	
W-118	Prohibit counter modification	When modifying, please close the settings
W-120	Do you want to restore factory settings?	Confirm?Yes: Enter No: X
W-121	The sewing counter has reached the set value	
W-124	The piece counter has reached the set value	Press the confirm button to execute formatting operations, press the cancel button to exit the current operation.
W-127	Do you want to change the	

	language?	

Information number	Information name	Sub-information content
W-128	Outer presser foot is up	Please lower the outer presser foot before proceeding with the current operation!
W-129	Cannot perform this operation	
W-145	Backup successful	
W-146	Backup failed	
W-147	Do you want to restore parameters?	Confirm?Yes: Enter No: X
W-148	Restoration successful	
W-149	Restoration failed	Please check the file contents
W-150	Cannot perform normal operations	
W-151	Unable to find the corresponding model directory:	
W-152	Unable to find the corresponding model parameter file:	
W-153	Do you want to import the parameter file:	
W-154	Do you want to export the parameter file:	
W-155	There is already a file with the same name; do you want to overwrite it?	
W-156	Do you want to export the selected file to the USB flash disk?	
W-157	Do you want to overwrite the file with the same name in the USB flash disk?	
W-158	File export results	
W-159	File import results	
W-160	Do you want to import the selected file?	Note: Existing patterns cannot be imported and overwritten
W-161	The following files were deleted incorrectly	
W-162	Incorrect file	Please verify the file
W-163	Import failed	Please check the file contents
W-164	Import successful	
W-165	Deletion successful	
W-166	Deletion failed	
W-167	Spindle zero point successfully saved	
W-168	The electric control and panel models do not match	
W-169	The electric control model does not belong to the current	

	panel model	
W-170	Please turn off	Current operation has ended. Please restart the machine