



OWNER'S MANUAL

Touch Panel EC

6T41X Pattern Sewing Machine



Dahao public number Dahao service cloud

V 2023-01

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Forewords






Thank you for using our Computerized Control System for Special Sewing Machine.

It is appreciated that you do read this manual carefully in order to operate the machine correctly and effectively. If the user operates the machine contrary to regulations herein, we will not take responsibility for any loss caused thereby to the user or any third party. Besides, you should keep this manual safely for future use. For any fault or problem of machine, please ask the professionals or the technicians authorized by our company for repair service













Safety Matters for Attention




1、 Signs & Definitions of Safety Marks














This User's Manual and the Safety Marks printed on the products are for you to use this product correctly so as to be away from personal injury. The signs and definitions of Marks are as follows:

 Danger	The incorrect operation due to negligence of this Mark will cause the serious personal injury or even death.
 Caution	The incorrect operation due to negligence of this Mark will cause the personal injury and the damage to mechanism.
	This symbol means "things to be noted". The pattern in the triangle indicates what must be paid attention to. (for example, the pattern on the left says, "beware of injuries")
	This kind of marks means "Forbidden".
	This kind of marks means "Must". The figure in the circle refers to the thing that has to be done. (E.g. The left figure is "Grounding!")

2、 Safety Matters for Attention

 Danger	
	For opening the control box, please turn off the power and pull out the plug from the socket first, and then wait for at least 5 minutes before opening the control box. Touching the part with high voltage will cause personal injury.
 Caution	
Using Environment	
	Try not to use this sewing machine near the sources of strong electric disturbance like high-frequency welding machine. The source of strong electric disturbance may affect the normal operation of the sewing machine.
	The voltage fluctuation shall be within $\pm 10\%$ of the rated voltage. Large-scaled voltage fluctuation will affect the normal operation of the sewing machine, where a voltage regulator is necessary.
	Working temperature: 0°C~45°C. The operation of the sewing machine will be affected in environment with temperature beyond the above range.
	Relative Humidity: 35%~85% (No dew inside the machine). Otherwise, the operation of the sewing machine will be affected.
	The supply of compressed gas shall be over the consumption required by the sewing machine. The insufficient supply of compressed gas will lead to the abnormal action of the sewing machine.
	In case of thunder, lightning or storm, please turn off the power and pull out the plug from the socket, for the operation of sewing machine may be affected.
Installation	
	Please ask the trained technicians to install the sewing machine.
	Don't connect the machine to power supply until the installation is finished. Otherwise the action of the sewing machine may cause personal injury once the start switch is pressed by mistake.
	When you tilt or erect the head of sewing machine, please use both of your hands in that operation. And never press the sewing machine with strength. If the sewing machine loses its balance, it will fall into floor thus causes the personal injury or mechanical damage.

	Grounding is a must. If the grounding cable is not fixed, it may cause the electric-shock and mis-operation of the machine.
	All the cables shall be fixed at least 25mm away from the moving components. By the way, don't excessively bend or over-tightly fix the cable with nails or clamps, or it may cause the fire or electric shock.
	Please add security cover on the machine head.

Sewing	
	This sewing machine can only be used by the trained staff.
	This sewing machine has no other usages but the sewing.
	When operating the sewing machine, do put on the protection glasses. Otherwise, the broken needle will cause personal injury if it hurts the eyes.
	Under following circumstances, please cut off the power at once so as to avoid the personal injury caused by the mis-operation of start switch: 1. Threading on needles; 2. Replacement of needles; 3. The sewing machine is not at work or beyond supervision.
	During working, don't touch or lean anything on the moving components, which will cause personal injury or damage the sewing machine.
	During working, in case of mis-operation, or abnormal noise or smell, user shall cut off the power at once, and then contact the trained technicians or the supplier of that machine for solution.
	For any trouble, please contact the trained technicians or the supplier of that machine.
Maintenance & Inspection	
	Only the trained technicians can perform the repair, maintenance and inspection of this sewing machine.
	For the repair, maintenance and inspection of electrical components, please contact the professionals at the manufacturer of control system in time.
	Under following circumstances, please cut off the power and pull out the plug at once so as to avoid personal injury caused by the mis-operation of start switch: 1. Repair, adjustment and inspection ; 2. Replacement of components like curve needle, cutter and so on.
	Before the inspection, adjustment or repair of any gas-driven devices, user shall cut off the gas supply till the pressure indicator falls to 0.
	When adjusting the devices with the power supply and gas supply on, users can't be too careful at following the entire Safety Matters for Attention.
	In case of damages of the sewing machine caused due to unauthorized modifications, our company will not be responsible for the repair.

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1 General Information

1.1 Overview

In 41X Series Industrial Sewing Machine Computer Control System, the spindle motor is driven by AC servo control technology with advanced level in the world, which has the characteristics of large torque, high efficiency, stable speed and low noise. The operation panel is an operation style that uses a variety of buttons to interact with each other with a single interface, and the pattern design diversification can meet the supporting requirements of different customers.

1.2 Features and Parameters

No.	Controller Model	41X Electronic Pattern Machine
1	Sewing Range	X (left and right) direction Y (front and back) 220(mm) x 100(mm) 300(mm) x 200(mm) 600(mm) x 400(mm) 1000(mm) x 600(mm)
2	Maximum Sewing Speed	3000rpm (when the needle pitch is less than 3mm)
3	Stitch Length	0.1~12.7mm (minimum resolution 0.05mm)
4	Presser Foot Feeding	Intermittent feeding (pulse motor two-axis drive method)
5	Needle Bar Stroke	41.2mm
6	Needle	DP×5, DP×17
7	Outer Presser Foot Rise	Standard 18mm Max 22mm (Pneumatic Max 25mm)
8	Middle Presser Foot	Stepper drive (adjustable range: 0~10mm)
9	Middle Presser Foot Rise	10mm
10	Pattern Data Storage	Memory/U Disk
11	Pause Function	The sewing machine can be stopped during sewing
12	Zoom-In -Out Function	When the stitch sewing pattern is selected, the X and Y axes can be enlarged and reduced independently. 1%~400% (0.1% unit)
13	Zoom-In And -Out Mode	Increase or decrease Stitch length/Increase or decrease pattern Stitch method
14	Sewing Speed Limit	200~3000rpm (100rpm unit)
15	Pattern Selection Function	Pattern number selection method
16	Counter Plus	Not counting/counting by pattern/counting by cycle (0~99999)
17	Counter Minus	Not counting/counting by pattern/counting by cycle (0~99999)
18	Sewing Machine Motor	Servo motor
19	Stop Function at The Dead Point on The Needle Bar	After sewing, the needle bar can be returned to the top dead center position.
20	Rated Power	600W
21	Temperature Range	0°C~45°C
22	Humidity Range	35%~85% (no condensation)
23	Power Supply Voltage	AC 220V ± 10%; 50/60Hz

Product Performance Standards: QCYXDK0004- 2022 Industrial Sewing Machine Computer Control System.

1.3 Precautions for safe use

● Installation

- Control box
 - ◆ Please follow the instructions to install properly
- Accessories
 - ◆ Please turn off the power and unplug the power plug before installing other accessories.
- Power cord
 - ◆ Please do not use gravity to hold down the power cord or excessively distort the power cord.
 - ◆ Please do not put the power cord near the rotating part, at least leave the 25mm above.
 - ◆ Before the control box is connected to the power supply, please check again whether the voltage of the power supply to be connected is the same as that marked on the control box and determine the position before the power supply can be supplied. If there is a power transformer device, the same should be checked before the power supply. At this time, the button power switch on the sewing machine must be placed in [OFF].
- Ground
 - ◆ To prevent electric shock from noise interference and leakage, the grounding wire on the power cord must be properly grounded.
- Accessory device
 - ◆ To connect electrical accessories, please connect them according to the indicated locations.
- Disassembly
 - ◆ Before removing the control box, the power must be turned off and the power plug unplugged.
 - ◆ When pulling out the power plug, it is forbidden to only pull the power cord, and pull out the power plug by hand.
 - ◆ There is dangerous high voltage in the control box, so if to open the cover of the control box, you need to turn off the power first and wait for more than 5 minutes before opening the cover of the control box.

● Maintenance, inspection and repair

- Repair and maintenance operations should be carried out by trained technicians.
- Be sure to turn off the power when changing the needle and shuttle.
- Please use the original parts.

● Other safety measures



- During the operation of the sewing machine, please do not touch the parts that will rotate and move (especially needles and belt accessories), and pay attention to the hair away from them, so as to avoid danger.
- The control device should not fall to the ground, nor should other objects be stuffed into the gap.
- Please do not operate without removing each cover.
- If the control device is damaged or can not operate properly, it is necessary to ask experienced technicians to adjust or check and repair it, and please do not run it before the fault is eliminated.
- Customers are kindly requested not to modify or change this control device by themselves.

● Disposal






- Please dispose it as general industrial waste.

- **Warning and danger signs**

- Misbehavior may cause danger. The degree of this is explained by the marking distinction described later.


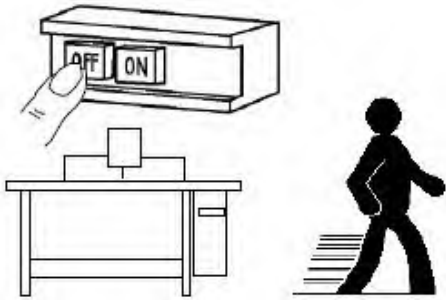
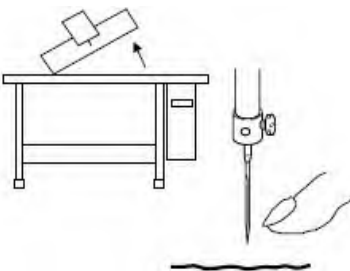
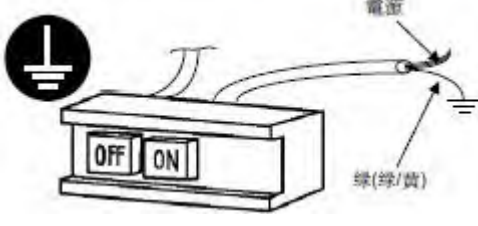
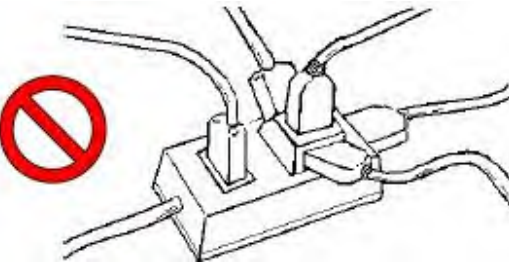

	Wrong action may result in serious injury or death		Wrongdoing may result in injury or damage to home or property
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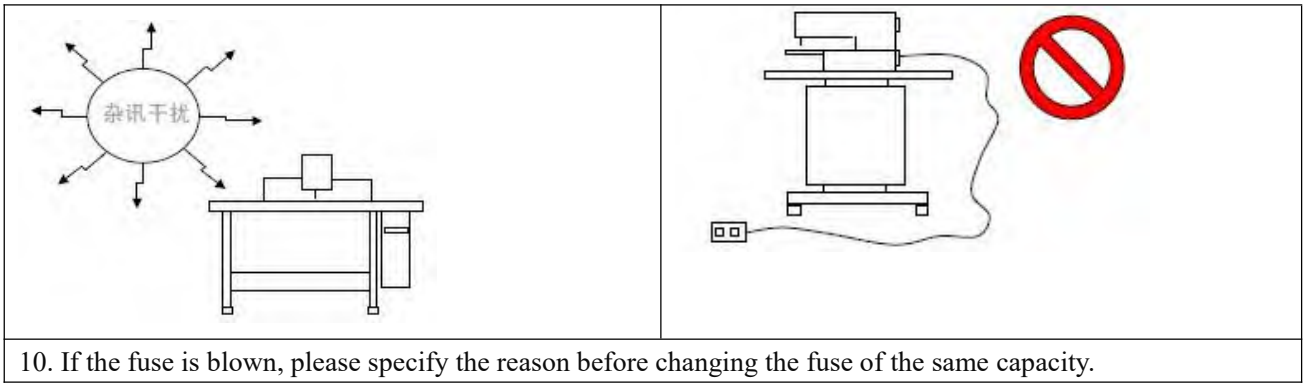
- The indications of the symbols are as follows.

	Please follow the instructions		Be aware of the danger of high voltage (electric shock)
	Watch out for high temperatures		Be sure to connect the ground wire
	Never		

1.4 Precautions for Usage

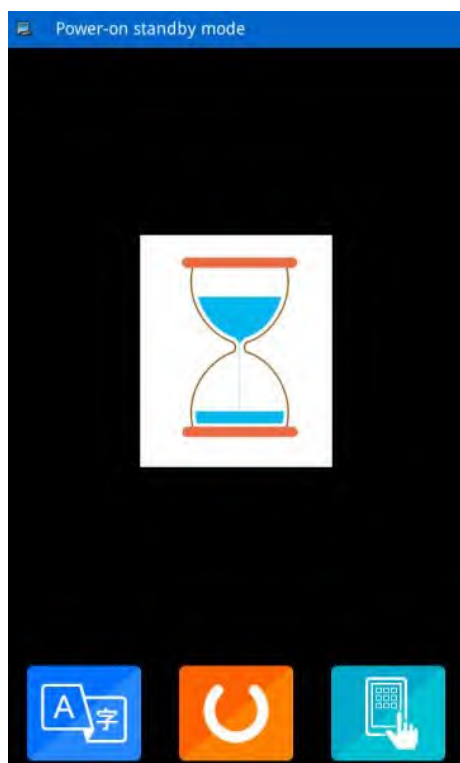


<p>1. When pressing the switch [ON], the foot must leave the pedal.</p> 	<p>2. Be sure to turn off the power before leaving the workplace.</p> 
<p>3. Be sure to turn off the power when turning the head sideways or changing the needle or threading the upper thread.</p> 	<p>4. The grounding wire should be well grounded.</p> 
<p>5. Do not use Multi-class Directory Interface-jack extension cords for household use.</p> 	<p>6. There is dangerous high voltage inside the control box, so wait 5 minutes after turning off the power before opening the cover of the control box.</p> 
<p>7. After replacing the motor, be sure to set the installation angle of the Main Motor as shown in this document.</p>	
<p>8. Please stay away from machines that will produce high frequency noise interference.</p>	<p>9. When using the external signal socket to connect the application accessories, the length of the connecting line should be as short as possible, the long line may cause malfunction, please use the isolated cable for the connecting line.</p>



1.5 Standardization

The function button adopts the recognized graphic logo in the industry, and the graphics are international languages, which can be recognized by users all over the world.



1.6 Mode of Operation

Brother vertical screen operation panel adopts the industry's advanced touch operation technology, friendly interface and convenient control have brought revolutionary changes to the user's daily use. The user can touch the screen with a finger or other object to complete the corresponding operation.



Attention:

In the process of use, users should pay attention to avoid using sharp objects to touch the screen, so as not to cause permanent damage to the touch screen.

2 Operation Instruction

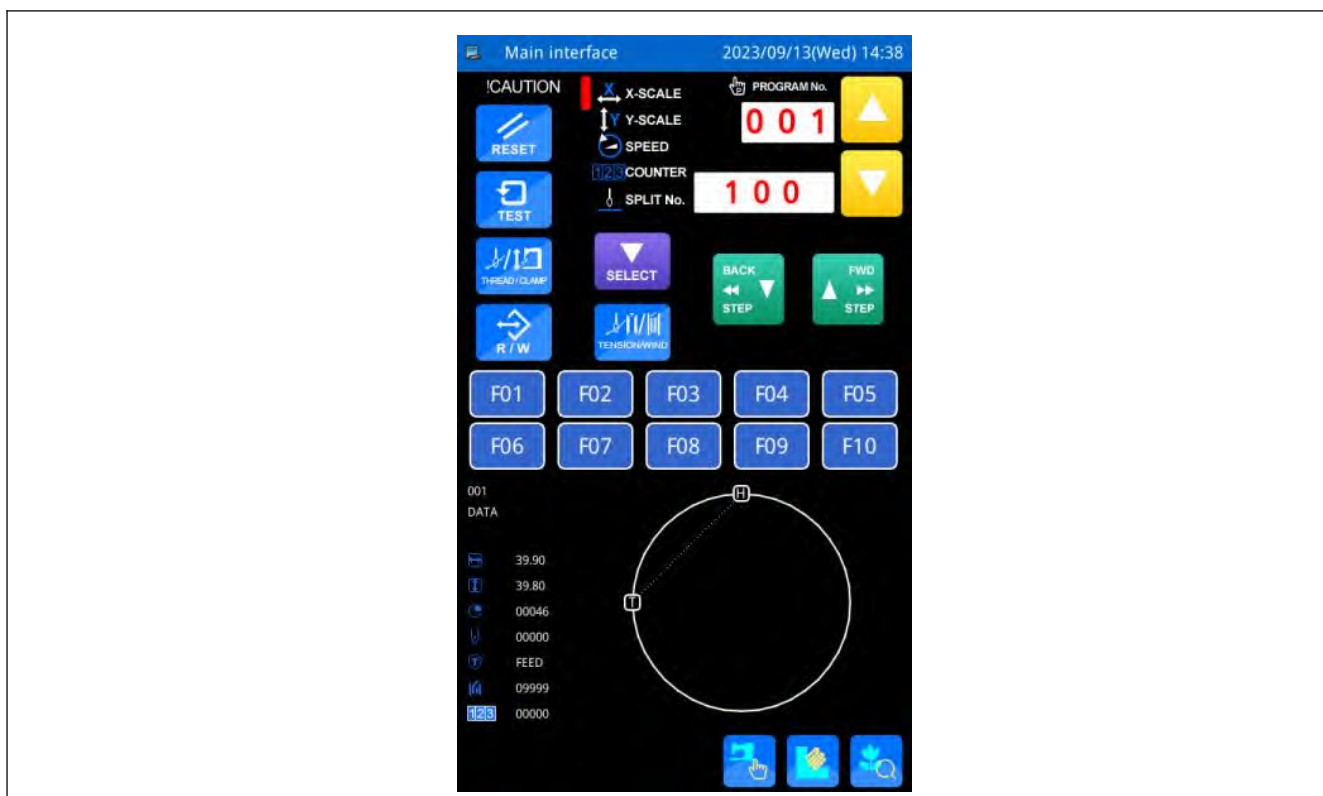
2.1 Basic Operation

1. After turning on the power switch, the power-on standby mode interface is displayed.



2. The pattern to be sewn

The selected pattern will be displayed in the current interface. To change the pattern (sewing data), please refer to the section [2.4.5 Pattern Management] for details.



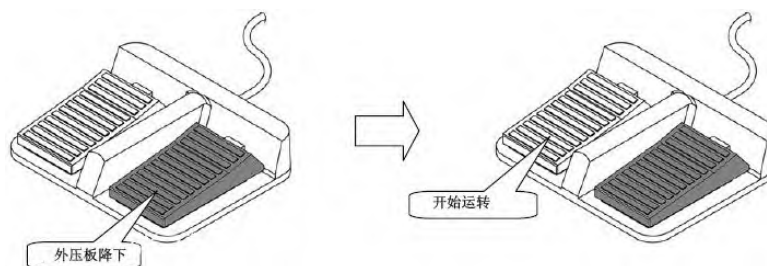
3. Start sewing

A. Before the actual sewing, please confirm the setting of the sewing conditions again, especially the setting of the speed setting value (200-3000).

B. The sewing machine speed is determined by the speed setting value and the Pitch. The speed setting value determines the maximum speed of the sewing machine, while the Pitch will limit the sewing machine speed.

[Note]When the sewing machine is sewing, please do not change the speed setting value (except when it is paused in the middle), which will affect the thread take-up.

- A. When the pattern is flashing on power-on, press the frame pedal to drop the frame, and press the start pedal to perform the action of finding the origin. At this time, the pattern program number enters the ready-to-sew state, and the number does not flash. When the frame is down, press the start pedal to start sewing.

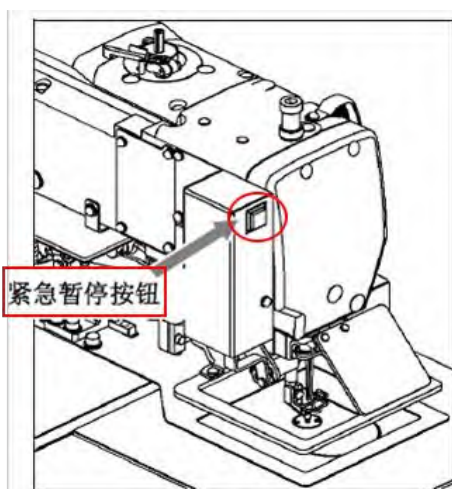


4. Pause in the middle

To stop running during sewing, press the emergency pause button installed on the head (see figure below).

The sewing machine immediately stops in the upper stop position (factory standard setting) and enters the halfway state. To release the pause state, press the emergency stop button-pop up the error module-press the RESET contact to report the error.

- A. If the switch is operated by foot, the sewing operation will continue. (Whether pressing the pedal to continue sewing after the sewing emergency stop is affected by parameter No. 653, the default is to press the pedal to return to the origin, move the needle position back and forth and then press the pedal to continue running)
- B. Press the forward/backward button to move to the sewing start position.
- C. To use the foot outer platen switch, the outer platen can be raised.
- D. Switch the speed, counter, and Stitch shortcut parameters through the shortcut parameter switch button, and adjust the parameter value through the menu change button
- E. The Middle Presser foot can be raised and lowered.



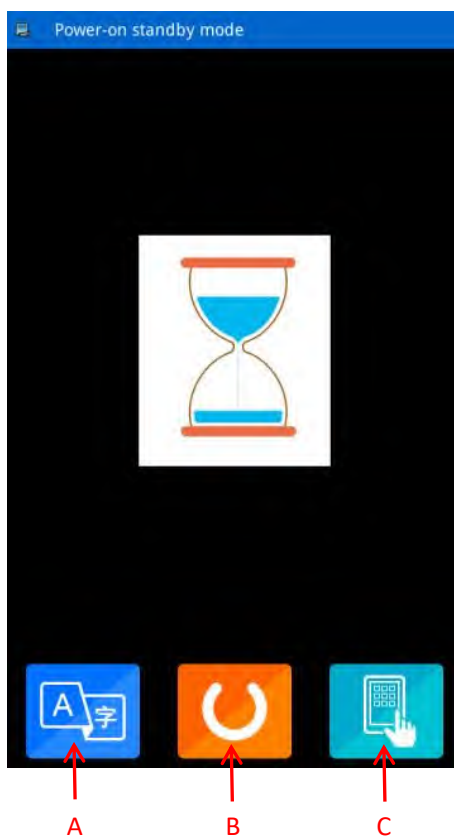
5. The sewing method of repair

The above halfway suspension function can be used to do repair sewing. If the broken thread presses the emergency pause button, after the machine needle stops in the upper stop position, press and hold the back shift button to rewind the outer presser foot to the first two or three stitches at the broken thread, and then press the running switch after putting on the needle and thread to continue sewing.



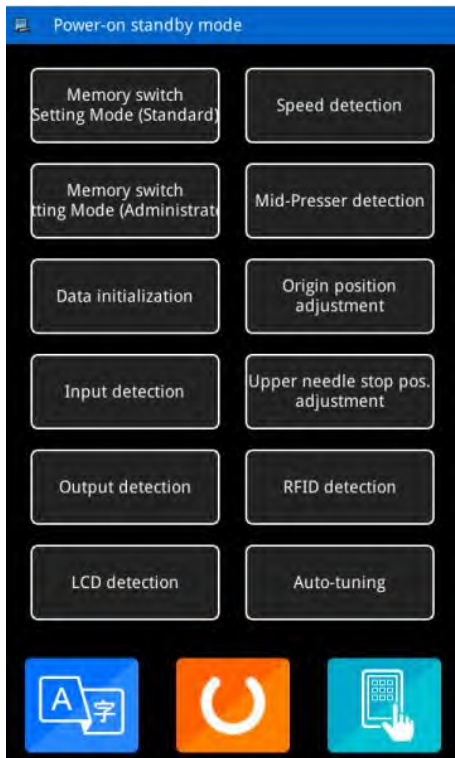
NOTE: when threading, never use your foot to step on the running switch, it will make the sewing machine run, it is very dangerous. So be sure to move your foot off the running switch when you wear the needle and thread.


2.2 Description of The States Displayed by The power-on standby mode interface



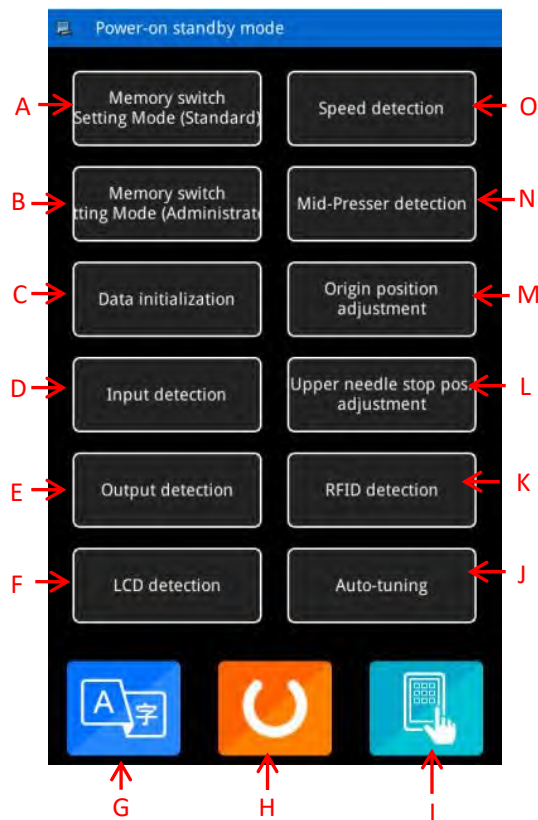
Function Description:

No.	Function	Description
A	Language switch button	Switch to the language of each country.
B	Enter button	Enter into the Main interface.
C	Boot detection mode	Enter detection mode.



Click  in power-on standby mode interface to enter Boot Detection Mode.

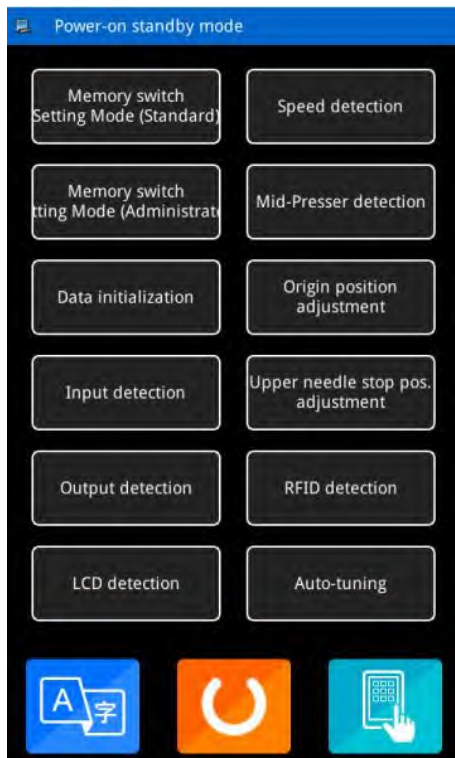
Function Description:



No.	Description	Content
A	Memory Switch Setting Mode (Standard)	This mode can set some basic parameters that users can use in their daily work. See [2.2.1] for details.
B	Memory Switch Setting Mode	The difference between this mode and the standard parameters is

No.	Description	Content
	(Administrate)	that the parameters are more comprehensive and have more functions, which are developed and used by agents and after-sales personnel. See [2.2.2] for details
C	Data initialization	This interface provides three formatting methods: Format USB Data, Format All Memory Data (Pattern) and Custom Format Memory Data (Pattern). See [2.2.3] for details
D	Input detection	In this mode, click the ON switch after the input signal to detect the signal status of the corresponding signal, and OFF indicates off. Click the programmable IO signal key to perform input configuration operations. See [2.2.4] for details
E	Output detection	Press the output signal button under the interface, you can detect the output state of the output signal such as the electromagnet. See [2.2.5] for details
F	LCD detection	Under the liquid crystal detection function, the liquid crystal will successively display five colors: white, black, red, green and blue, which is used to determine whether the liquid crystal is eclipsed. See [2.2.6] for details
G	Voice switching Settin	You can switch languages of different countries.
H	Enter Main interface	The main screen is displayed.
I	Enter/Exit the Administrator Interface	You can exit the detection mode.
J	Auto-tuning	The self-tuning mode screen is displayed.
K	RFID detection	Under this interface, the pattern number can be written into the card, click to read and identify the pattern number stored in the card. See [2.2.7]
L	Upper pin stop position adjustment	Under this interface, the maximum correction of the pin bar and the correction of the parking space can be performed. See [2.2.8]
M	Origin position adjustment	In this interface, the ON/OFF status of the sensor can be displayed in real time by driving XY movement through the arrow keys. See [2.2.9]
N	Mid-Presser detection	On the Detection Mode screen, press the press pin detection button to access the press pin detection function. See [2.2.10]
O	Speed detection	Under this interface, the spindle motor can be set to the specified speed, and the spindle motor can be set to forward or reverse, and the actual speed will be displayed in the actual speed bar. See [2.2.11]

2.2.1 Memory Switch Settings (Standard)



Click Memory Switch Setting Mode (Standard) in the power-on standby mode interface, the interface switches to the Main interface, and enters the standard parameter Setting Mode.



After entering this mode, use the pattern change



button to switch parameters, use the menu change button to set the parameter value, click



the TEST button

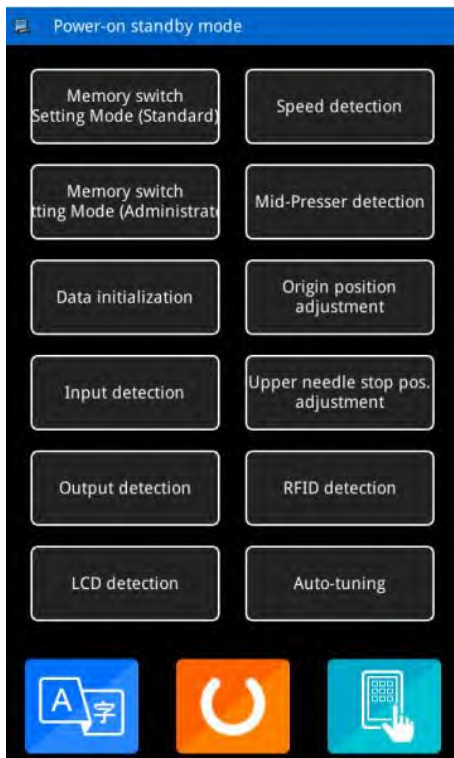


click the RESET button to reset the current parameter default value.

NOTE:

1. This mode only has some basic parameters that users can use in their daily work.
2. Standard parameters can also be opened in the standard menu function mode of the Main interface.
3. Standard parameters include: (1, 2, 100, 200, 300, 400, 401, 402., 403 parameters)

2.2.2 Memory Switch Settings (Administrate)



Click Memory Switch Setting Mode (Administrate) in the power-on standby mode interface to set the administrator Memory switch parameters.



After entering this mode, use the pattern



change button to switch parameters, use the menu change button to set the parameter

value, click the TEST button



to save

and exit, and click the RESET button



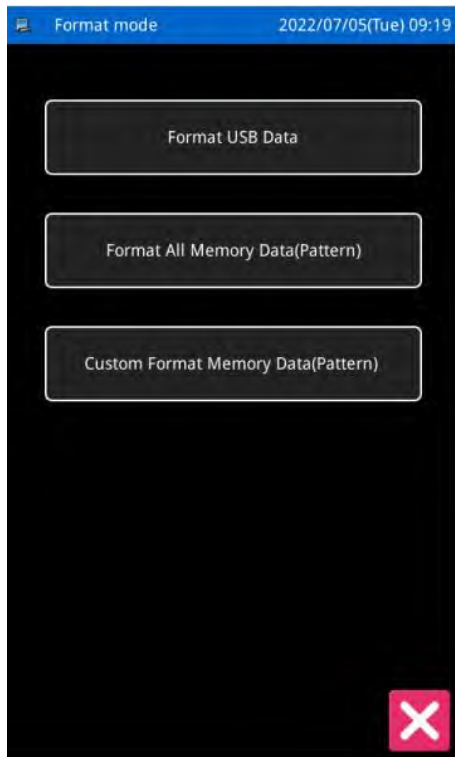
to


reset the current parameter default value.

NOTE:

1. The difference between this mode and the standard parameters is that the parameters are more comprehensive and have more functions, which are developed and used by agents and after-sales personnel.
2. This parameter can also be opened from the Function Setting Mode (mechanical parameter) in addition to power-on

2.2.3 Data Initialization



Press the Data initialization button  in the power-on standby mode interface to enter the Format mode.


This interface provides three formatting methods: Format USB Data, Format All Memory Data (Pattern) and Custom Format Memory Data (Pattern).

1. Description of Format USB:

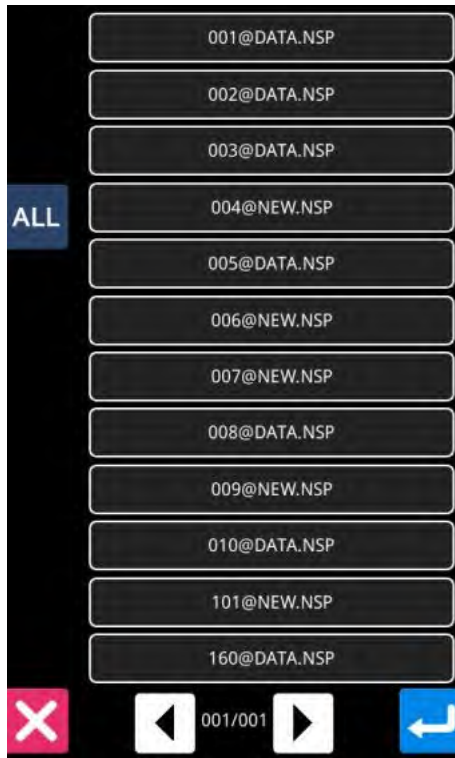
After pressing the "USB" button, all files in the USB will be deleted. If you need to back up the data, please make a backup in advance.

2. Description of formatted memory:

After pressing the "Memory" button, all patterns in the memory will be formatted.

[Note] After executing the memory format command. When press the exit button  to exit, the prompt message "No pattern in memory" will be displayed, and the factory pattern will be loaded

automatically after the confirmation button  is operated.



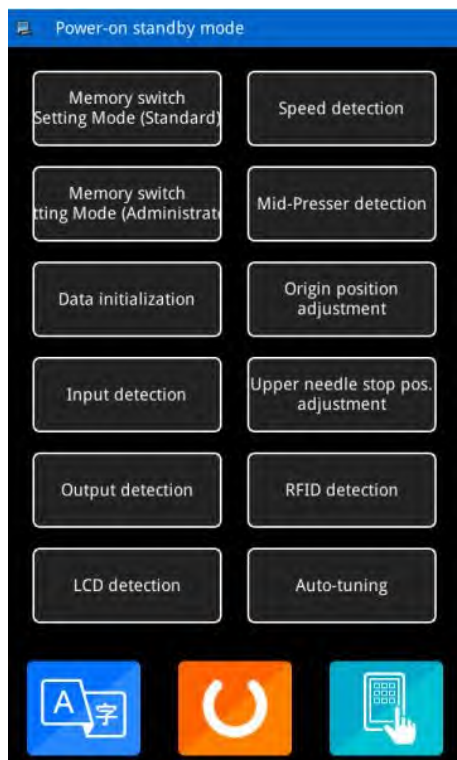
3. Description of Custom Format:


After pressing the "Custom" button, you will enter the custom format Memory pattern interface.

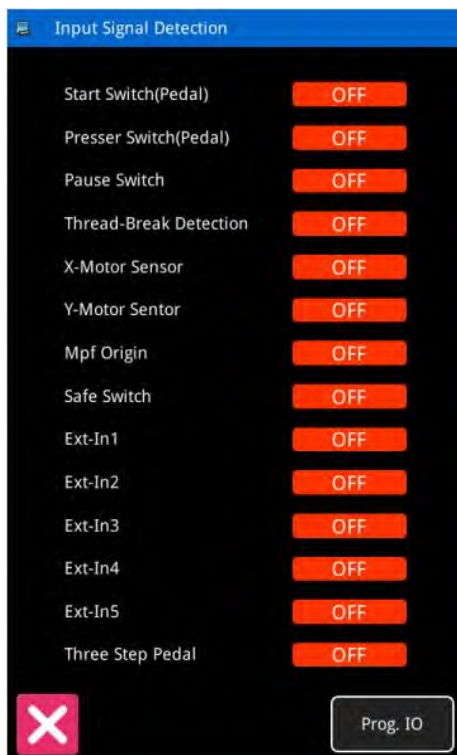
A list of all patterns is provided in this interface, and patterns can be selectively deleted.

[Note] The current sewing pattern cannot be deleted.

2.2.4 Input Signal Detection



Click Input detection  in the power-on standby mode interface to set it.

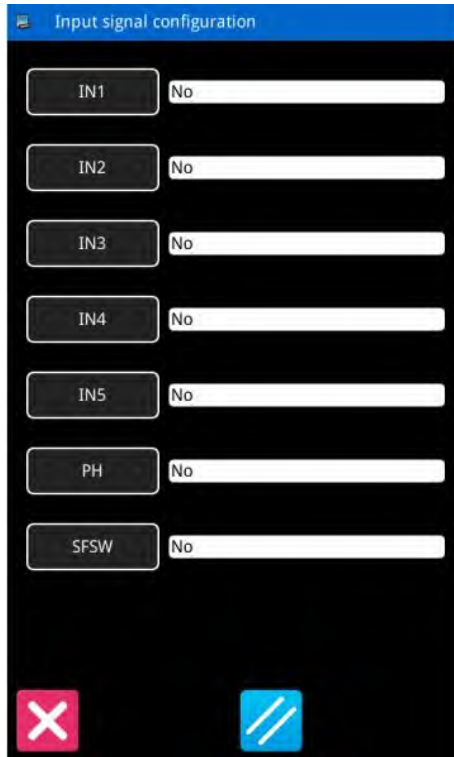


Function Description:

Under the detection mode interface, enter the input signal detection function. ON: Indicates open; OFF: Indicates off(1)Input Signal Detection:

- (2)Start Switch(Pedal)
- (3)Presser Switch(Pedal)
- (4)Pause Switch
- (5)Thread-Break Detection
- (6)X-Motor Sensor
- (7)Y-Motor Sensor
- (8)Mpf Origin
- (9)Safe Switch
- (10)External input 1
- (11)External input 2
- (12)External input 3
- (13)External input 4
- (14)External input 5
- (15)Three Step Pedal

Press the Exit button  to return to the previous screen.




Click the programmable IO signal button



to enter the input signal configuration interface, and then perform input configuration operations.


Description:

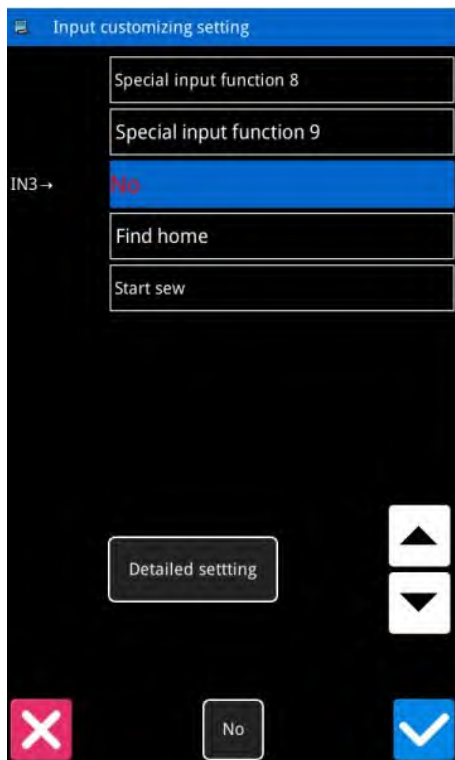
Click input 3 (IN3)  to enter the custom input signal interface, and select the input

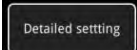
signal by clicking the button  , as follows:

- a. None
- b. Determine the origin
- c. Start sewing
- d. Sewing speed plus
- e. Sewing speed minus
- f. Air pressure detection
- g. Thread-Break Detection
- h. Special input function 1~9

Click OK button  to confirm and return to the input signal configuration interface, click Cancel

button  to cancel the operation and return to the input signal configuration interface.




Click the detailed setting button , to enter the custom input signal interface, and the following parameters can be set:

- 1) Input signal switch state setting (logic):
normal/inverted
Default: normal
- 2) When the switch is set alternately, the switch state is retained until the next time:
normal/alternate switch
Default: normal

2.2.5 Output Signal Detection



Function Description:

Press the output signal detection button  in the power-on standby mode interface to enter the output signal detection function.

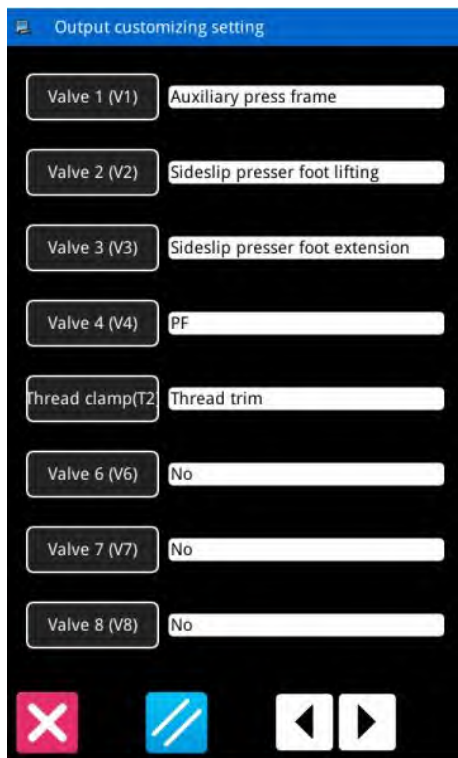
Press the output signal button in this interface to detect the output state of the output signal such as the electromagnet.

Type of output signal:

- a. Pull out the wire
- b. Thread trimming
- c. Presser foot
- d. Intermittent Presser foot
- e. Loosen the thread
- f. Clamp T2
- g. Auxiliary air valve 1~8

Press the exit button  to return to the previous screen.

[Note] The sewing machine has actual action.



Custom output signal:

Click the [Programmable IO] button to enter the custom output signal interface, and then perform custom output signal operations.



Example:



Click the "Valve 1 (V1)" button to enter the custom output signal interface, click the button




to select the output signal, as follows:

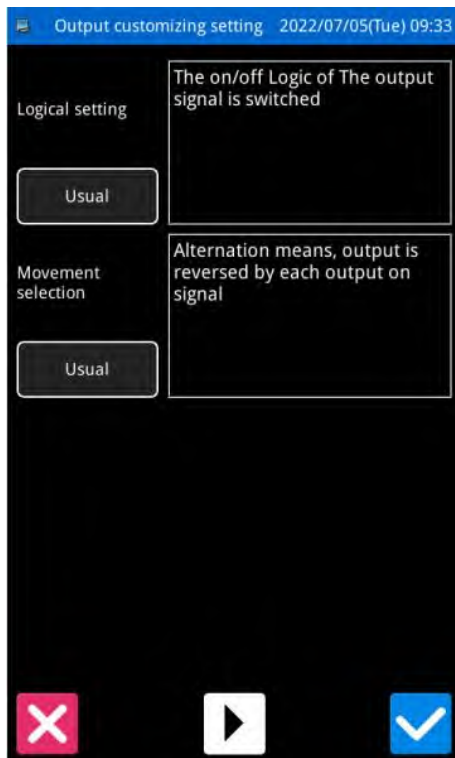
- | | |
|--|-------------------------------------|
| a. None | t. Thread trimming |
| b. Auxiliary press frame | u. loose thread |
| c. Flip Presser foot | v. Dial the line |
| d. Spindle running | w. Middle Presser foot |
| e. Sewing completed | x. External pressure frame |
| f. Error state | y. Insert knife before sewing |
| g. Find the origin | z. Blow air after sewing |
| h. Secondary origin | aa. Needle cooling |
| i. Stop halfway | ab. Disconnect output |
| j. Side sliding Presser foot telescopic | ac. Emergency stop output |
| k. Side sliding Presser foot lift | ad. Markers |
| l. Thread catch | ae. Laser Positioning Light - Left |
| m. Function 1~9 | af. Laser Positioning Light - Right |
| n. Function A/B/C | ag. Auxiliary fixtures |
| o. Return to the origin and the pressure frame falls | |
| p. Back to the origin and the frame falls | |

- q. Laser 1~9
- r. Laser suction ah. Start automatic shuttle change
- s. Laser lift ai. Indicator light during work
- aj. Standby indicator
- ak. Special Presser foot function 1~7

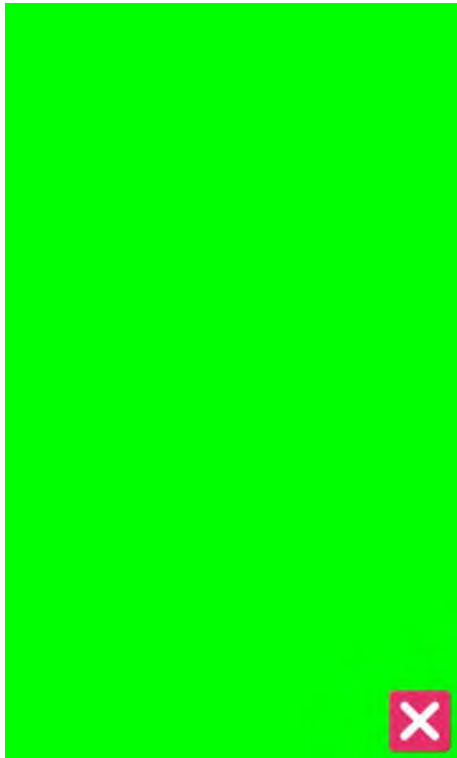
Click the OK button  to confirm and return to the output signal configuration interface, and click the cancel button  to cancel the operation and return to the output signal configuration interface.

Click the Detailed setting button  to enter the custom output signal interface, and the following parameters can be set:


- 1) Status setting of signal switch:
normal/inverted
Default: normal
- 2) Output inversion:
normal/alternate switch
Default: normal
- 3) Start delay setting (start delay rang0-65535/10 microseconds)
disabled/valid
Default value: disabled
- 4) Close delay setting (close delay rang0-65535/10 microseconds)
disabled/valid
Default value: disabled




2.2.6 LCD Detection



Function Description:

Press the LCD detection button  in the power-on standby mode interface to enter the LCD detection function, click the position other than

the Exit button, , and the liquid crystal will display five colors of white, black, red, green and blue in sequence, which is used to determine whether the liquid crystal is discolored.

Press the Exit button  to return to the previous screen.

2.2.7 RFID Detection



Function Description:

Write: write the pattern number to the card.

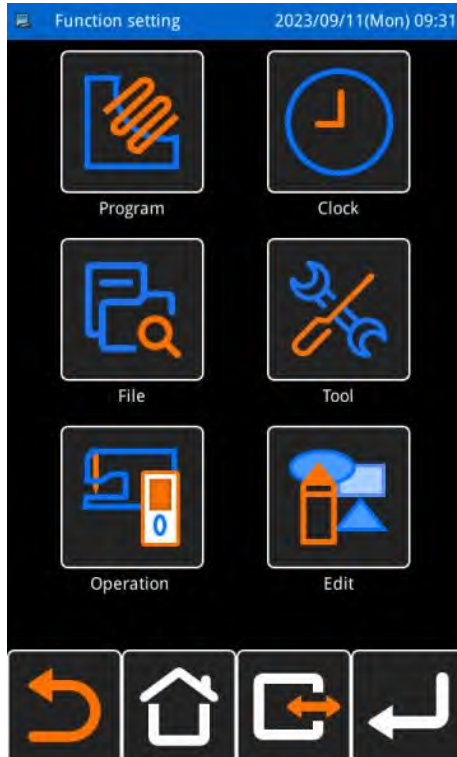
Read: click to read to identify the pattern number stored in this card.

[note]: open the other parameters A-34 and A-35.

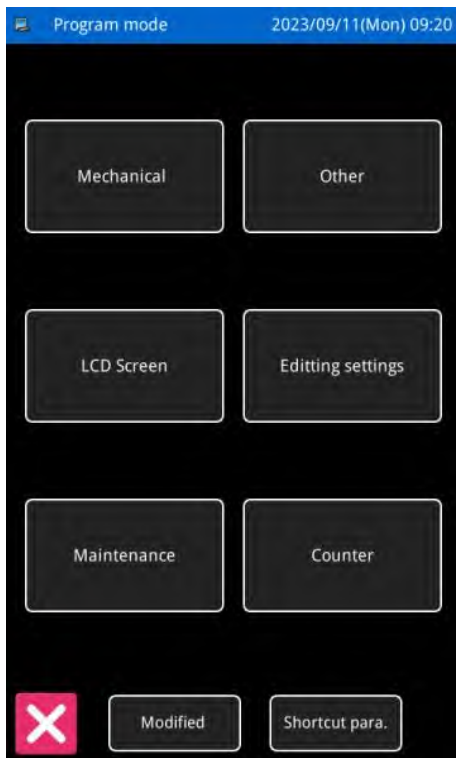


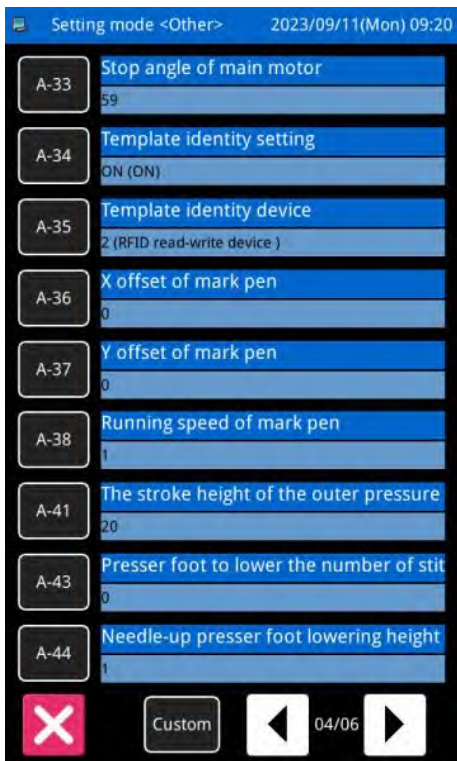
A-34 and A-35 Parameter Settings:

Home screen Tap to enter the function setting screen.

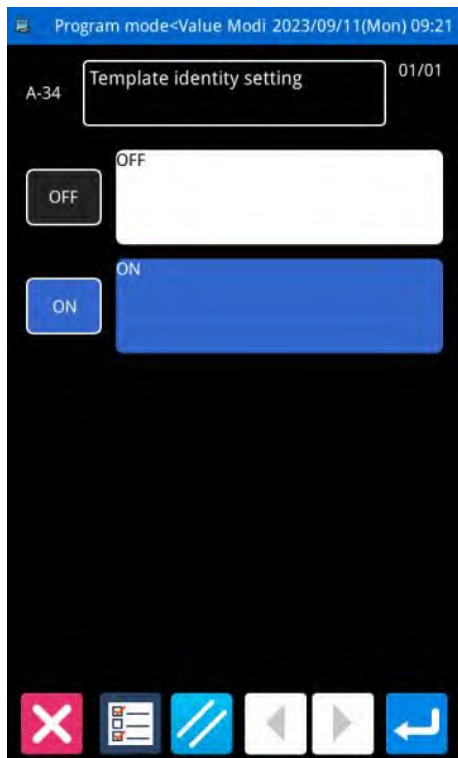


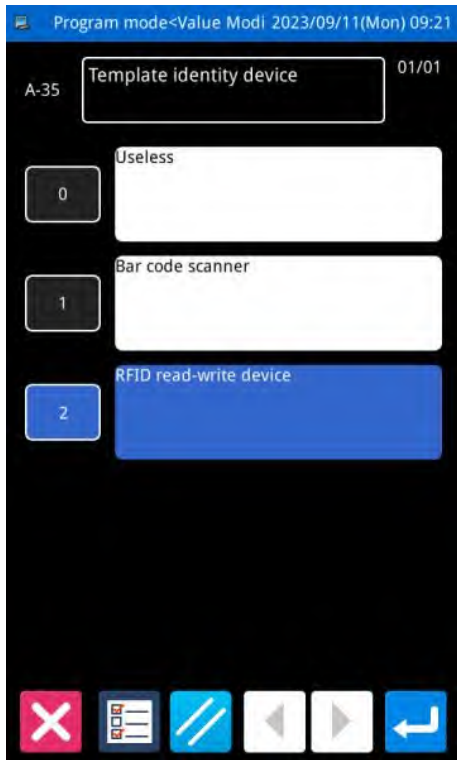
Function Setting interface Click Operation setting to enter the Setting mode interface, click Other to enter the Setting mode (other) interface.





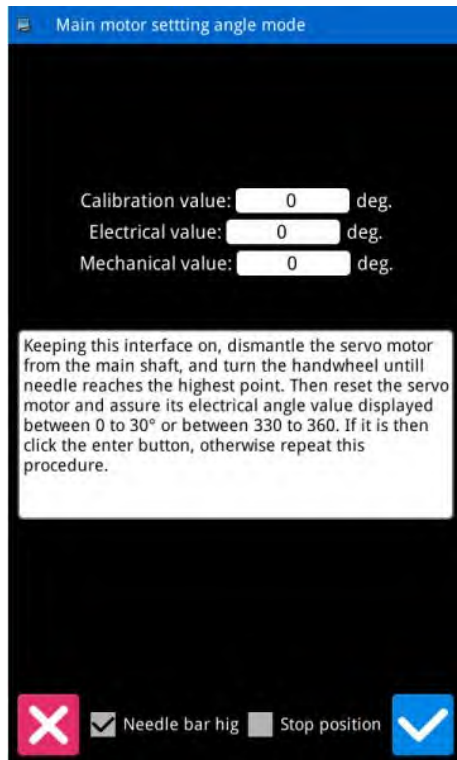
In the Setting Mode (Other) interface, click parameter A-34 and select ON to open



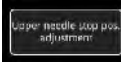


Click on parameter A-35 and select 2FRID Read/Write Device.

2.2.8 Upper pin stop position adjustment




Function Description:

Press the spindle motor installation angle setting button  in the power-on standby mode interface interface to enter the spindle motor installation angle setting function.

1) Needle bar highest correction

Remove the spindle motor under the current interface, rotate the handwheel to shake the needle bar of the sewing machine to the highest point, reinstall the spindle motor, make sure that the displayed electrical value is in the range of 0-30 ° or

330°-330 °, then press OK button . Otherwise, remove the spindle and repeat the above action.

2) Parking space correction


Remove the spindle motor under the current interface, rotate the handwheel to shake the needle bar of the sewing machine to the parking position, reinstall the spindle motor, make sure that the electrical value displayed is in the range of 23-83 °

and then press OK button . Otherwise, remove the spindle and repeat the above action.

2.2.9 Origin Position Detection



Function Description:

Press the Origin Detection button  in the power-on standby mode interface to enter the XY Origin Detection function.

In this interface, the XY movement is driven by the direction buttons, and the ON/OFF status of the sensor can be displayed in real time during the process.


ON: Sensor detected

OFF: No sensor detected

Press the Exit button  to return to the previous screen.

Set the installation position compensation amount of the laser equipment through the laser compensation parameters.


[Note] The sewing machine has actual action.

The axis lock icon  in the interface ability to lock or release X or Y motors


2.2.10 Mid-Presser detection




Function Description:

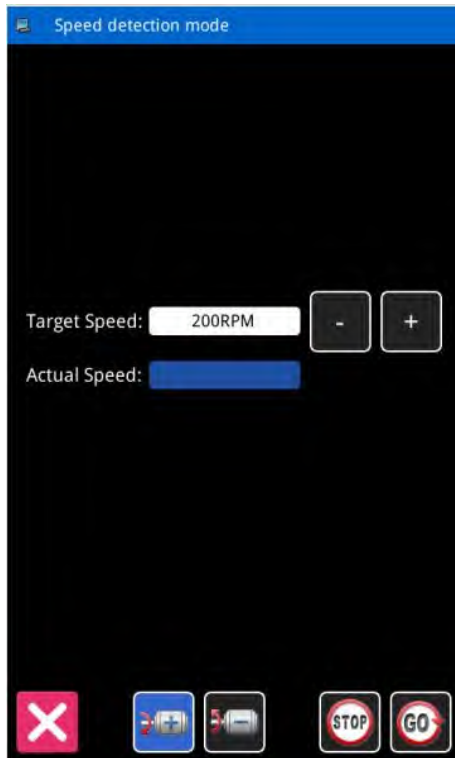
Press the Mid-Presser detection button  in the power-on standby mode interface interface to enter the Mid-Presser detection function.

: Lower Middle Presser foot


: 提 Raise Middle Presser foot






: Switch the position of the Middle Presser foot

2.2.11 Speed detection



Function Description:

Press the Speed detection button  in Speed Detection Mode Interface to enter the spindle speed detection function.


Set the target speed of the spindle motor through  and , Set the forward or reverse rotation of the spindle motor through  and . After pressing the run button , the spindle motor will rotate at the set speed. At this time, the actual measured speed will be displayed in the actual speed input field.

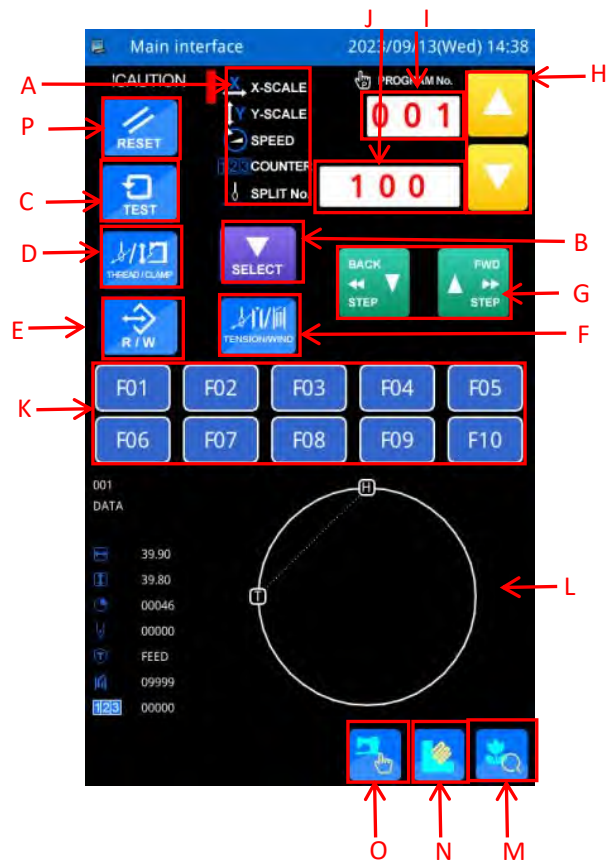
Press the stop button  to stop the machine.

Press the Exit button  to return to the previous screen.

2.3 Description of Main Interface



Click  in the power-on standby mode interface to enter the Main interface.



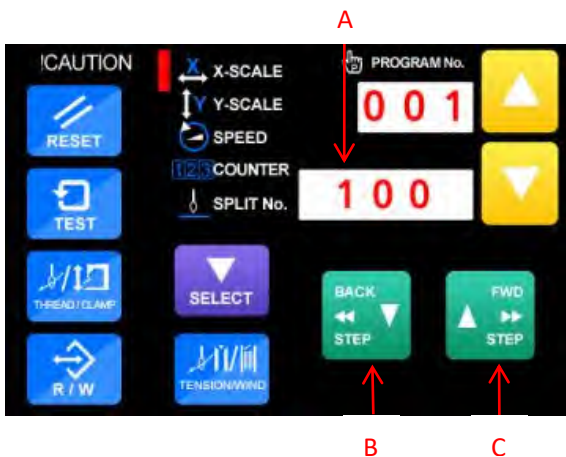
Function Description:

No.	Function	Content
A	Main interface shortcut parameters	<p>X-SCALE: The scale of the pattern in the X axis Y-SCALE: The scaling of the pattern in the Y axis SPEED: Displays the sewing speed of the current pattern COUNTER: Displays the numeric value of the current counter SPLIT NO.: Broken seam</p> <p>(Note: 1. You need to use a pattern with a pause code to switch to this function. 2. the pause code before and after each represent a segment, that is, a pattern if there are 2 pause codes will produce 3 segments of stitches, jump is to jump to the position where each section starts, press the frame, start can start sewing from the corresponding position.)</p>
B	Select the key	<p>After entering the main interface, click the "SELECT" key to toggle the five options in A, and click the menu change button to modify the value.</p>
C	Sewing trial button	<p>When the system is in the preparation mode (the pattern number does not blink) and the outer pressure frame is in the falling state, click the test key, at this time the test is lit, and the test seam state is started, and the start frame will automatically perform the test seam along the current pattern. If you click the test key again or the "Forward, Back" key during the automatic test stitching process, you can click the "Forward, Backward" key to perform a single-step test, and click the test key again to continue the automatic test.</p>
D	Threading/Presser foot height setting button	<p>Click this button to control the press frame and press the foot to fall or lift at the same time. When the button is selected, click the pattern toggle key to enter the foot height adjustment function, then click the "BACK or FWD" key (i.e. parameter modification key) to change the height of the middle pressor foot (that is, the center press foot action stroke), and click the "String" key again to save the settings.</p>
E	R/W button	<p>Click this button to enter the memory/USB flash drive pattern selection interface, you can preview all memory patterns.</p>
F	Winding button	<p>Press the winding key, the pattern does not flash, the pressure frame falls, press and hold the winding key foot to start the pedal spindle to start rotating, open the winding mode. The winding key can be released during rotation and the action does not stop. Until the pedal is released, stop winding mode.</p> <p>NOTE:</p> <ol style="list-style-type: none"> 1. Correct use method: Press and hold the winding button and step on the start pedal to start the spindle to rotate. During the rotation, you can release the winding button and the action will not stop. Winding mode is stopped until the pedal is released. 2. Winding speed setting: The winding speed is the same as the rotation speed. When the spindle starts to rotate, the Main interface parameter automatically jumps to SPEED, and the menu display box shows that the spindle rotation speed is the winding speed.

G	Shortcut parameter switch button	Switch between Main interface parameters, administrator parameters and you can modify the contents of J.
H	Pattern selection button	Switch the pattern number, menu item or parameter. (Example of switching pattern display box Content: pattern number, parameters, etc.)
I	Program display box	Display the pattern number/parameter No., etc.
J	Menu display box	Under the parameters in the display menu (displays the Main interface shortcut parameters settings/standard parameters, etc.)
K	Pattern shortcut buttons	After setting the U/C pattern, click F01-F10 to switch the U1-U10 pattern
L	Pattern shape	Display the shape of the current sewing pattern.
M	Graphical preview	Enter the graphic preview interface (see operating manual)
N	Display function list	Enter the function directory interface (see 2 for details)
O	Display menu list	Enter the menu menu interface (see 2for details)
P	Reset key	1. Cancel some of the errors (such as: emergency stop is not reset) 2. Exit the ready to sew mode (i.e., make the pattern flash) 3. Restore the initial value of some parameters (such as: X, Y scaling, counter, etc.)

2.3.1 Speed Adjustment

Function Description:



No.	Description
A	Display the current sewing speed (200~2700)
B	Sewing machine speed
C	Reduce sewing machine speed

When entering the speed adjustment, if the speed adjustment icon lights up in red, press this button

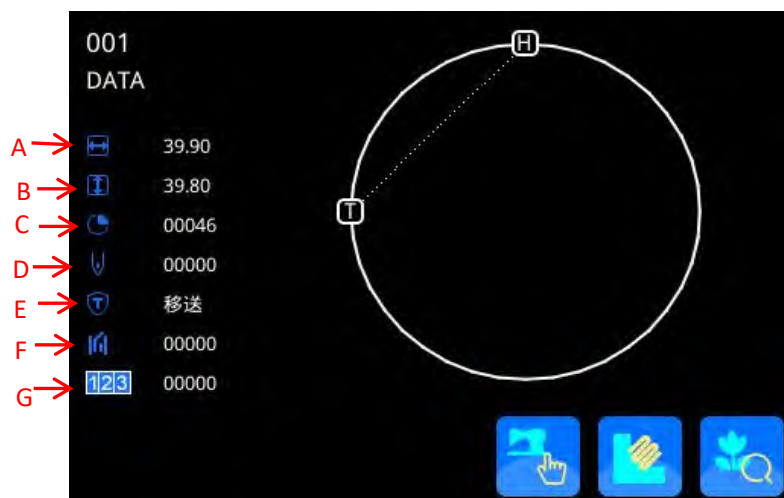


to adjust the speed. If the speed adjustment icon does not light up in red, press the select button



to adjust.

2.3.2 Pattern Stitch Display




Function Description:

No.	Description
A	Dimensions in the X direction of the pattern
B	Dimensions in the Y direction of the pattern
C	Display the total Stitch of the current pattern (including transfer, trimming, end, code, etc.).
D	Display the Stitch at the current position (pattern).
E	Display the current (needle position) position sewing data data type. As follows: (Sewing "SEW", transfer "FEED", secondary origin "2HP", upper pause "USTP", lower pause "DSTP", thread trimming "TRIM", feed speed "FEDS", restart "ASRT", Platen weight "HEVI", material thickness "ATUM", skip seam "BAT", function 1 "FUN1" ~ function 7 "FUN7", turn over Presser foot "REPF", end "END")
F	Display the current value/set value of Counter minus.
G	Display the current value/set value of Counter plus.


2.3.3 Menu Interface

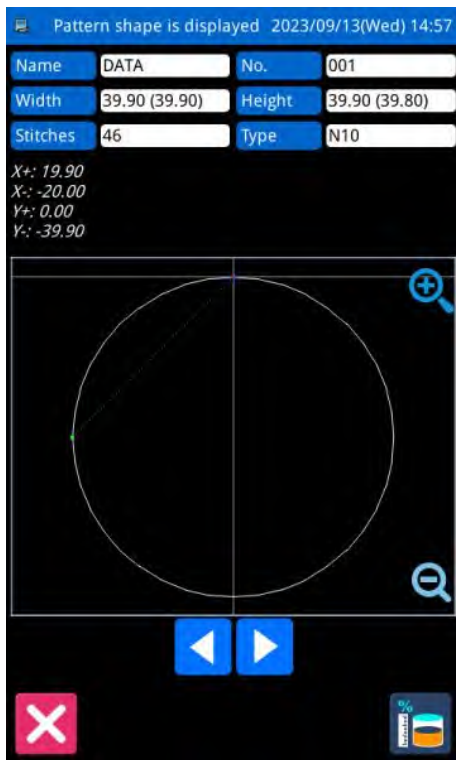


Click  in the Main interface to enter the Menu Interface.

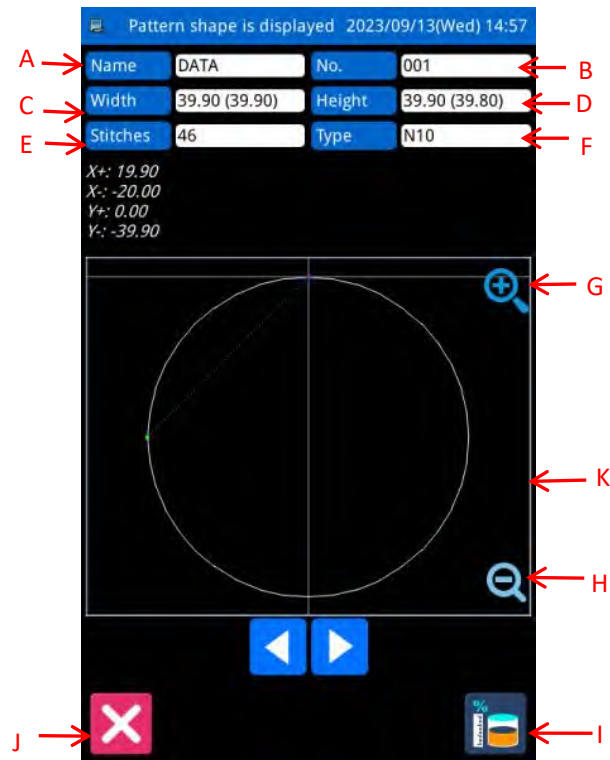
2.3.4 Graphical Preview Interface



Click  in the Main interface to enter the Graphical Preview Interface.



Click the pattern display area on the Main interface P1 interface to enter the pattern preview interface




Function Description:

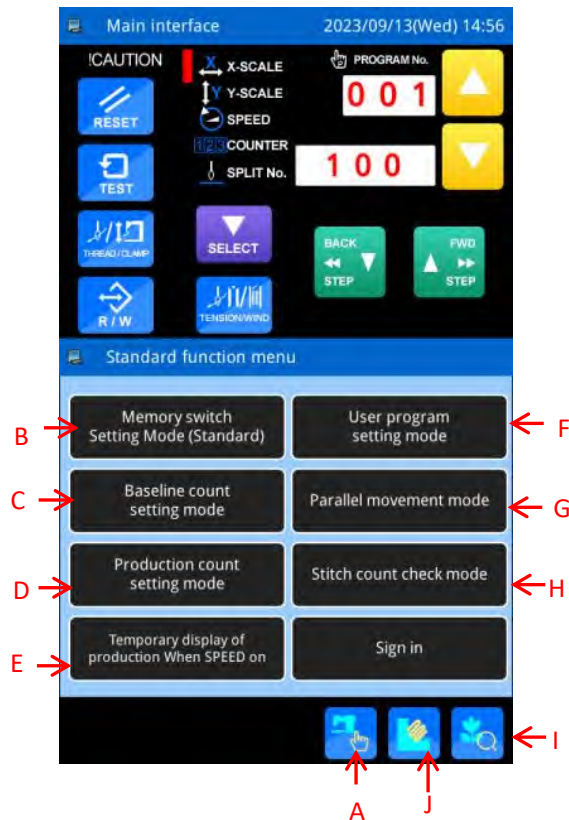
No.	Description
A	Pattern name.
B	Pattern number.
C	The size of the pattern in the X direction.
D	The size of the pattern in the Y direction.
E	Display the total Stitch of the current pattern (including transfer, trimming, end, code, etc.).
F	Display the current pattern type.
G	Enlarge the pattern
H	reduce the pattern
I	Display remaining memory space
J	Exit the current interface and return to the previous screen (return to Main interface)
K	Display the pattern shape

2.3.5 Multi-class Directory Interface



Click  in the Main interface to enter the multi-class directory interface.

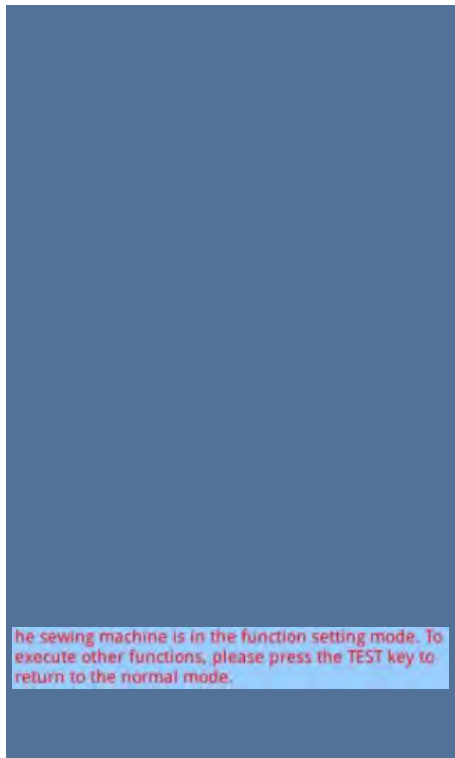





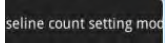
Function Description:


No.	Function	Content
A	Standard Function Menu	Display the function menu interface
B	Memory Switch Setting Mode (Standard)	Set standard parameter values, [see 2.2.1 for details]
C	Bottom Count Setting Mode	Set the lower thread count [see 2.3.5.1 for details]
D	Production Count Setting Mode	Set production count [see 2.3.5.1 for details]
E	The Production Count Is Temporarily Displayed When The Speed Light Is On.	In the bottom line counting mode, the production count quantity is temporarily displayed
F	User Program Setting Mode	This function is used to set U/C pattern [see 2.3.5.2 for details]
G	Parallel Movement Mode	Start the XY movement of the current pattern at the sewing start position. After entering this mode, use the menu change button to move, use the parameter switch button to select the movement direction, and click TEST to save and exit. NOTE: This mode can only be in the Ready state with the frame down to enter.
H	Stitch Check Mode	
I	Graphical Preview	Enter Graphical Preview Interface, enter Graphical Preview to view the basic information of the current Main interface display graphics.
J	Function Catalog	Enter the function setting directory interface

2.3.5.1 Counter Settings

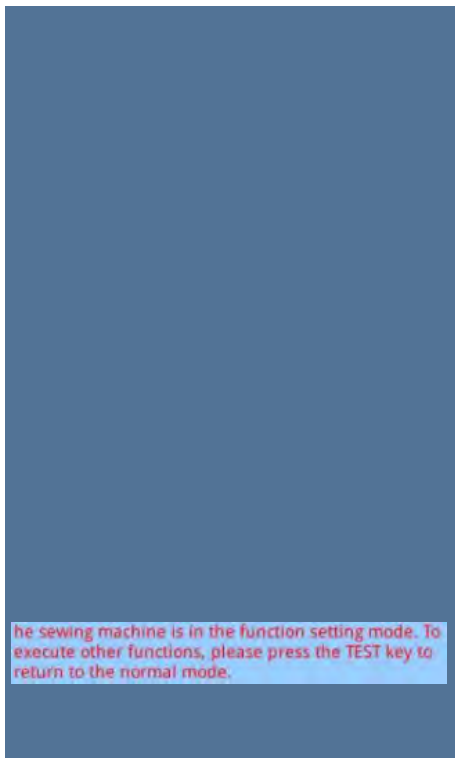


Bottom line count Setting Mode


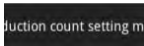
Press  in the Main interface to display the Menu Interface, press , and the counter lights up, it is the bottom line counting mode.


Enter this mode to set the initial value of the bottom line count, use the menu change button to adjust the value, and click the TEST button  to save and exit.

NOTE: This mode is not affected by the 300th parameter counter mode. When the Main interface parameter is set to the bottom line count, only the counter button is lit, and when the Main interface parameter is set to the production count, the counter and speed are lit at the same time.

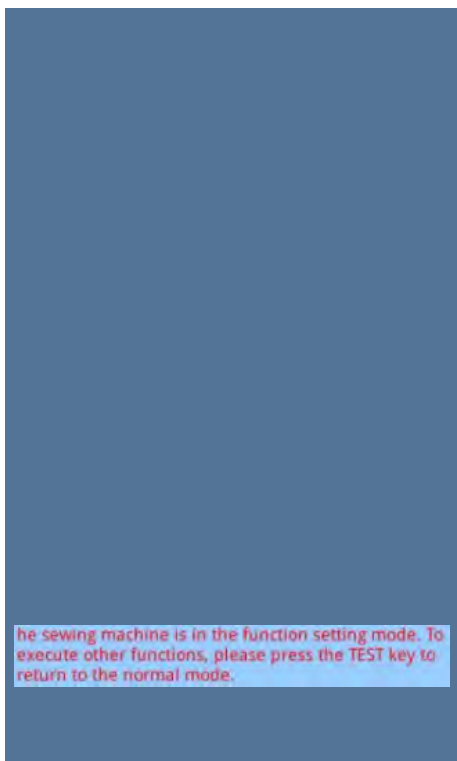


2. Production Count Setting Mode


Press  on the Main interface to display the Menu Interface, press , and then the speed lights up and the counter keeps flashing, indicating the production count Setting Mode.

Press  to return to the Main interface.

2.3.5.2 User Program Settings



1. How to enter the U/C pattern setting interface

Click  in the Main interface to enter the standard function menu interface, and then click the save switch Setting Mode (Standard), after setting the user parameter No. 400, TEST saves and exits.

2. Set U pattern

Set the No. 400 user parameter to ON, enter the user program Setting Mode, and set the U pattern. Use the menu change button to set the memory pattern of the current U pattern. P1 in the figure is the memory pattern. Use the program change button to modify the U pattern that needs to be set. After the setting is complete, TEST saves and exits.




3. Set C pattern

How to set C pattern: set user parameter 400 and cycle parameter 401 to ON, TEST save and back into this mode, click F01 to switch to C pattern setting, and use menu changes to set the U pattern number of the current C pattern. Use the program change button to modify the C pattern that needs to be set, and TEST exits after the setting is completed.

NOTE: The C pattern is a cyclic pattern composed of multiple U patterns



4. Delete U/C pattern

After entering the user program Setting Mode, use the pattern switch button to select the pattern to be deleted, click the Reset button , or use the menu change button to delete the pattern, or long press the Reset button to delete all patterns.

2.3.5.3 Parallel Movement Mode




Click the parallel movement mode on the menu catalog, start the XY movement at the starting position of the seam, enter this mode, use the menu change button to move, use the parameter switch button to choose the direction of movement, and click TEST to save and exit. NOTE: to enter this mode, you must be in the Ready state, and the press box can only be entered now.

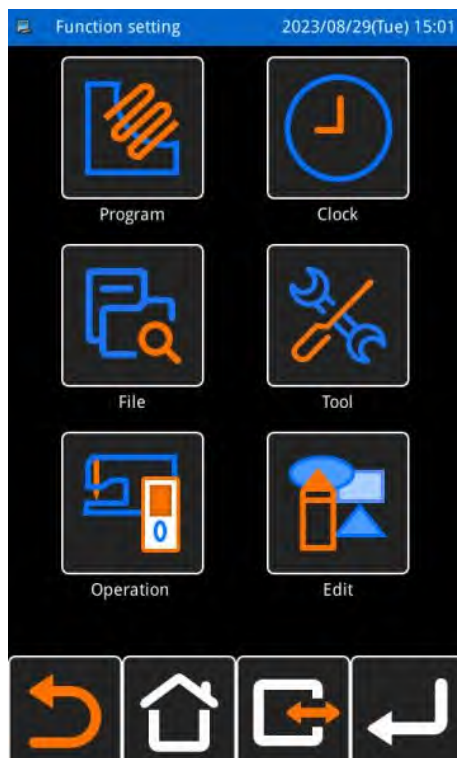
This model is affected by parameter 465 (parallel movement memory of sewing patterns).

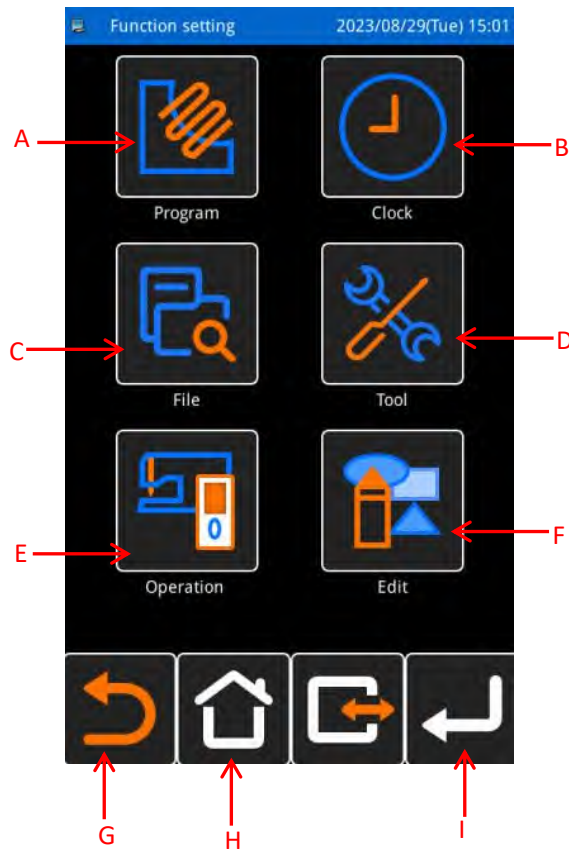


2.4 Function Catalog



Click  in the main interface to enter the function setting directory interface.

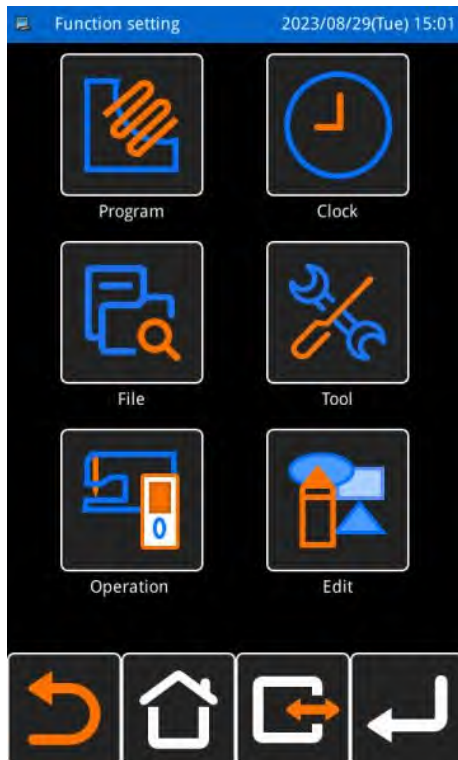






Function Description:

No.	Function	Content
A	Program	Enter the icon playing board and command playing board interface
B	Clock	Datetime can be set
C	File	For details of the settings, see 2.3.5.4
D	Tool	Enter the function mode, see 2.3.5.2
E	Operation	You can set various parameters, please refer to 2.3.6.1 operation setting instructions for details
F	Edit	You can use the pattern playing interface, please see 2.7
G	Return key	Click to return to the previous interface
I	OK button	Confirm the current command

2.4.1 Program Icon Patterning



In order to use icon punching for pattern punching editing, click the OK button  to enter Function


selection, and click the icon punching button . It will prompt whether to enter the icon punching plate, and then click the OK button to enter the icon punching interface.




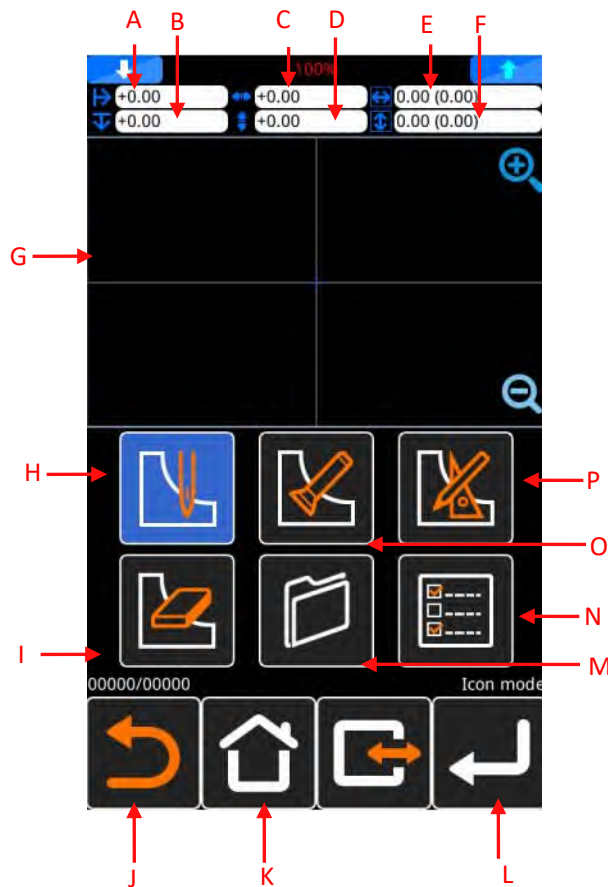
2.4.2 Program Command Board



To write a program with commands, press and hold the

button  to enter the "Write with Commands"

mode. Press and hold the button  to return to the icon writing program.



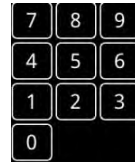
Function Description:

No.	Function	Content
A	Absolute X coordinate	The X coordinate of the current coordinate relative to the origin
B	Absolute Y coordinate	The Y-axis coordinate of the current coordinate relative to the origin
C	Relative X coordinate	The current needle position is relative to the X-axis coordinate of the previous needle
D	Relative Y coordinate	The current needle position is relative to the Y-axis coordinate of the previous needle
E	End point X coordinate	The X coordinate of the current graphics end point
F	Y coordinate of the end point	The Y coordinate of the current graphics end point
G	UI	Display the pattern in pattern editing
H	Confirm the sewing start position	Confirm the position of the starting point and modify the position of the starting point
I	Clear button	Clear the pattern being edited
J	Return button	Exit icon playing board
K	Main interface	Click this button to return directly to the Main interface
L	OK button	OK to enter this function
M	Pattern Management	Import, export, secondary distribution(Including read, stitch read, save function)

No.	Function	Content
N	Board parameter settings	Click to enter parameter setting mode
O	Data traversal	Move the cursor position to use
P	Graphic modification	Enter this mode can set various settings such as graphic rotation, overlap, etc.



Buttons used to write programs using commands:



Enter a value



Used for moving the needle position



Used for feeding cloth and creating basting



Used for finishing and editing



Delete some data



Use for creating lines or circles



Select pattern



Used for saving patterns



Used for canceling an operation



Used for entering an end code



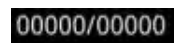
Press this button to set the needle position and can also be used as part of a command



Display command type



Display the entered data



Current Stitch Number/Total Stitch

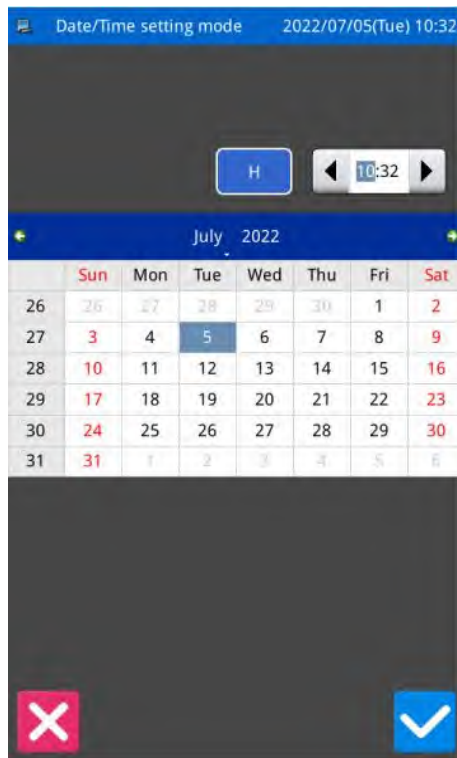



Return to the initial screen

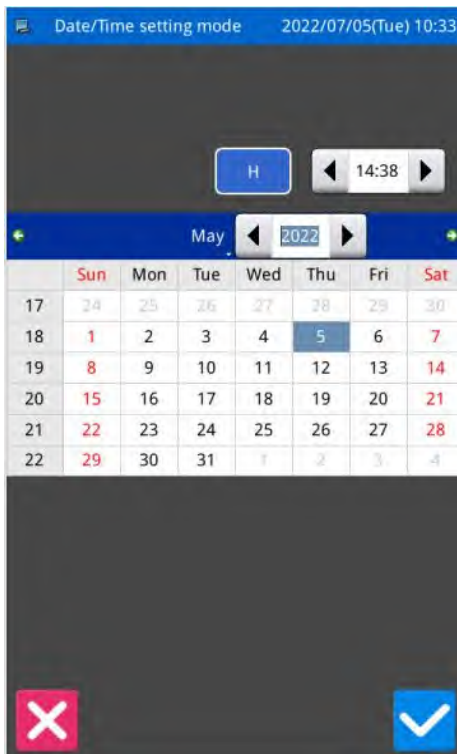


Adjust the size of the displayed picture. Long press this button to switch to Icon mode

2.4.3 Date and Time Settings



Press the date and time setting button  in the function menu interface to enter the date and time setting mode.





1. Date setting method:

Click on the "year" in the calendar (here, 2022), and two arrows on the left and right will be displayed for adjusting the size of the year.

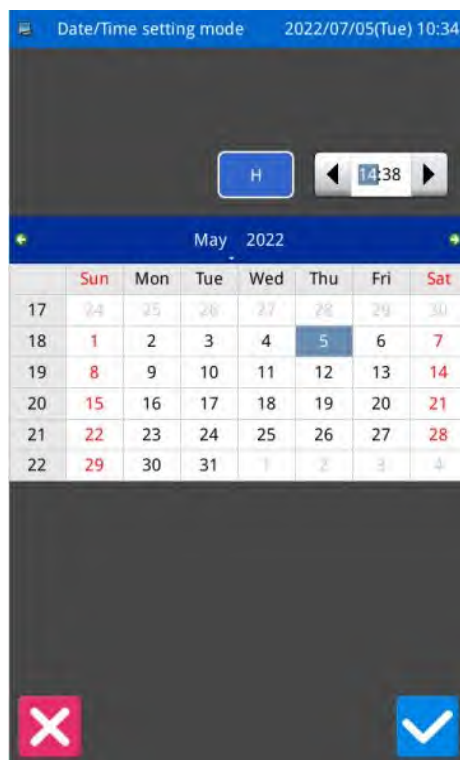
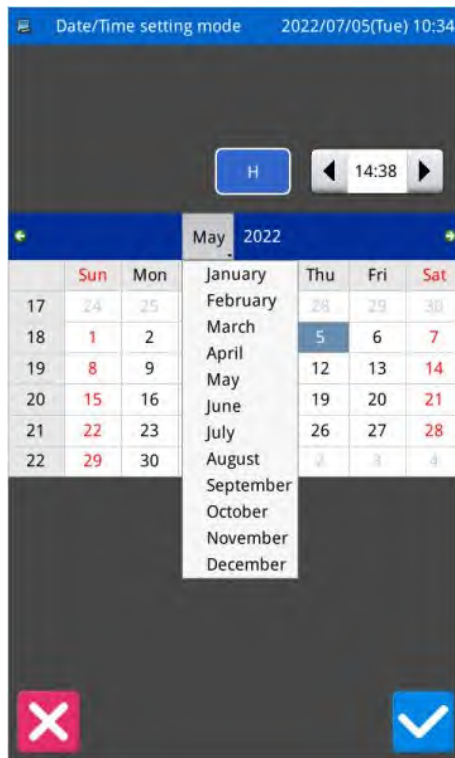
Click on the "month" in the calendar (here is March), a selection menu for January to December will pop up, and you can select the appropriate month.

After the year and month are set, the calendar display will be refreshed to display the correct monthly calendar content for that year and month.

It is also possible to query the content of the monthly calendar by buttons  and .

Click the date in the calendar to set the date.


[Note] To set the date, click the date in the calendar to set it successfully. Modifying only the year and month is not feasible.



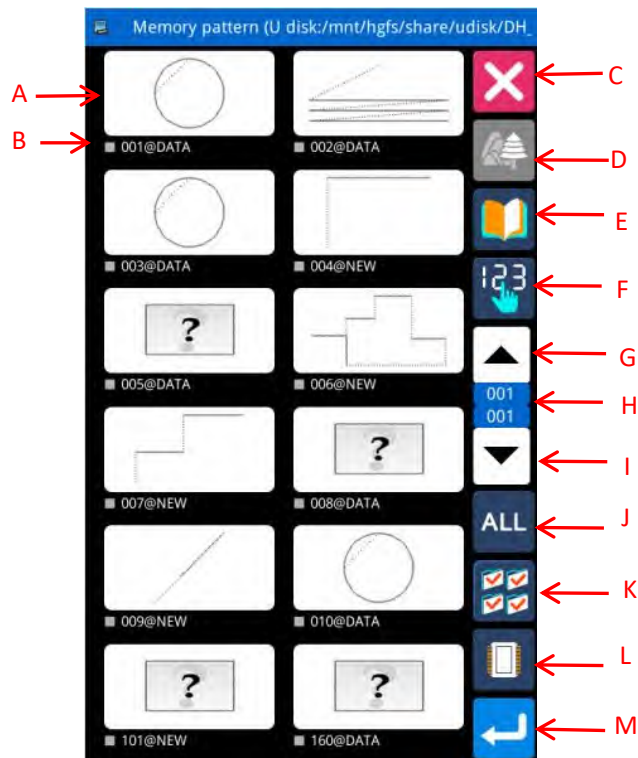
2. Time setting method:

By default, when entering this interface, the hour is set first. Use the "hour" button to switch to setting the minute (the "hour" button will display the content will change to "minute" at this time), and then use the left and right arrows to modify the content.

Or click the hour or minute display area to switch the hour/minute modification method.

After modifying the date or time, press the button  to save and exit.

2.4.4 File Management



Function Description:



No.	Function	Content
A	Pattern preview list	Display the list of saved patterns [Note 1] If the VDT (all formats except NSP) pattern is selected, a prompt message will be displayed to convert the pattern format. [Note 2] If the number of selected patterns is out of range or the data is corrupted, a message is displayed (the pattern cannot be selected). (Caution light indicates that there is a problem with the pattern)
B	Pattern number name	Display the saved pattern name and number.
C	Return button	Return to Main interface
D	Show graphic buttons	After selecting the graphic, click the Display Graphics button to display the currently selected graphic.
E	SEW format save path selection keys	Export pattern format selection, default is SEW format. Select the path to which the pattern is exported to the USB flash drive. The default path is the root directory
F	Sort button	Redisplay the pattern list according to modification time or sorting by number
G	Previous page button	Turn the page forward
H	Page number display	Display Content as current page number/total number of pages
I	Next button	Turn the page backwards
J	All	Select all patterns
K	Select button	When there is a prohibited symbol above, only one pattern can be selected, and when there is no prohibited symbol above, multiple patterns can be

No.	Function	Content
		selected.
L	U disk/memory memory selection	Select the Read Memory or USB Flash Drive pattern
M	Enter	Confirm the operation and enter the Function selection interface.

2.4.5 Pattern Management Operation Description



1. Enter the Pattern Management interface

Operate the directory button  on the Main interface, that is, open the multi-type directory mode, and then click File Management  to enter the Pattern Management interface.



2. Select the object to read (memory/U disk)

To enter the interface, the memory read mode is selected by default (see figure). Switch to the U disk read mode through the switch button, and the U disk read mode interface is shown in the following figure.





[NOTE] when performing the above operation when the USB disk is not inserted, the message "USB disk has been unplugged" will be displayed.

3. Select the drawing number and confirm

Select the drawing number to be sewn and then press the OK button. After successful selection, it will directly return to the Main interface. (pressing the OK button will bring up the function buttons)

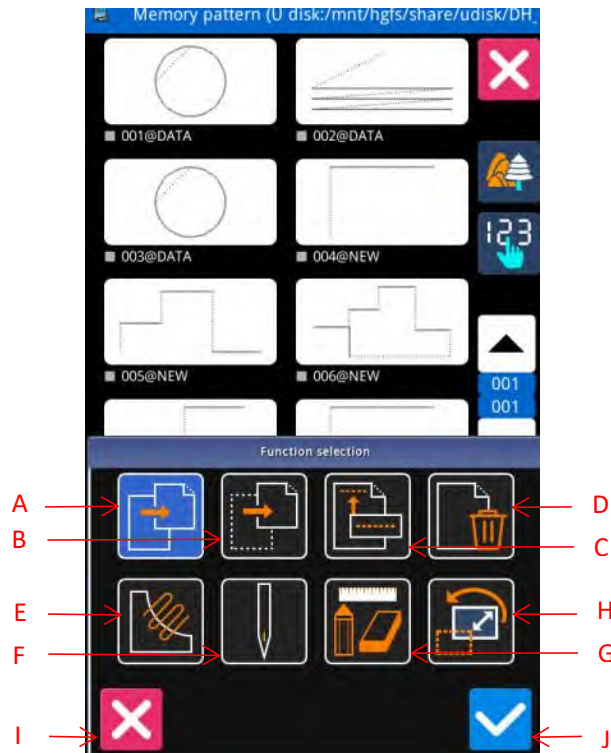
[Note] If the selected number also exists in the memory when reading the pattern from the U disk, the prompt message "Whether to overwrite the pattern data in the memory" will be displayed, and you can operate according to the specified information.

4. Other operations



If there are many designs, use the page button   to browse the screen, and use the sort button



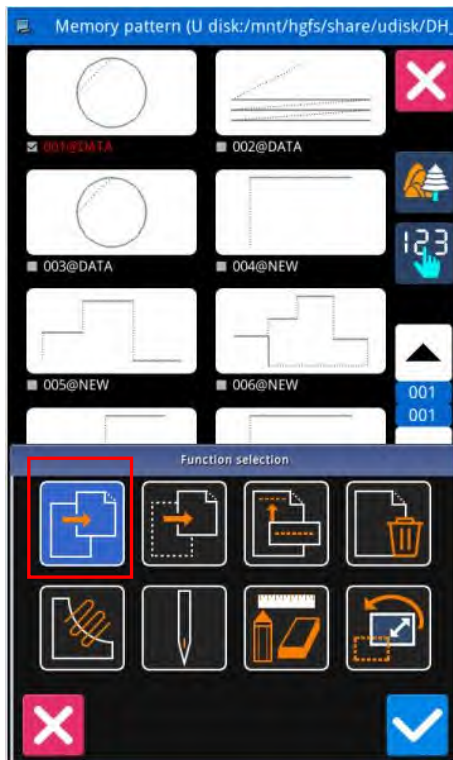
to view the list of designs more intuitively.





Function Description:

No.	Function	Content
A	Copy To U Disk	The selected pattern can be copied, click the copy button and then click the OK button  to copy the pattern to the U disk.
B	Cut To U Disk	The selected design can be cut, click the cut button and then click the OK button  to cut the design to the U disk.
C	Save Key	Save the pattern to the U disk, please refer to 3.4.4 for details
D	Delete Key	Delete the selected pattern, please refer to 3.4.2 for details
E	Open In Program	Click the icon to enter the icon printing interface
F	Sewing	After selecting the pattern, click the icon and confirm to enter the Main interface to sew the currently selected pattern
G	Modify Graphics	The selected pattern can be modified
H	Convert Graphics	The selected pattern can be converted, there are various conversion buttons in the interface
I	Return Key	Return to the previous interface
K	Enter	Confirm to enter the current mode

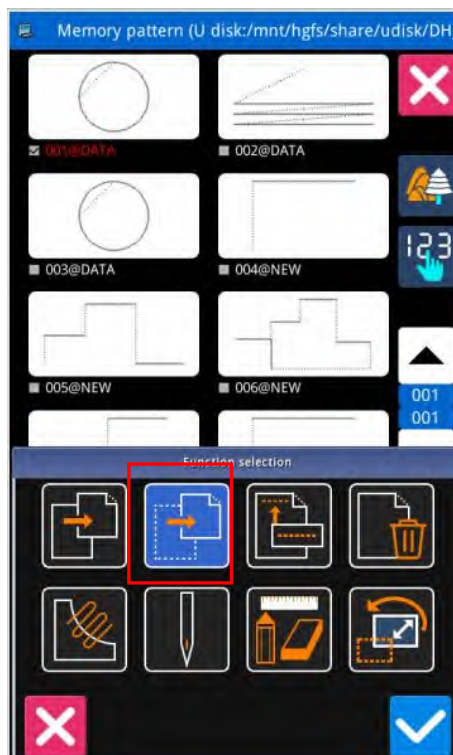
2.4.6 Pattern Copy





When copying the pattern, you need to select the pattern to modify first, then click the OK button  to enter the Function selection, click the copy pattern button , then the modification button will turn blue. Then, click the OK button to copy the selected pattern to the U disk.

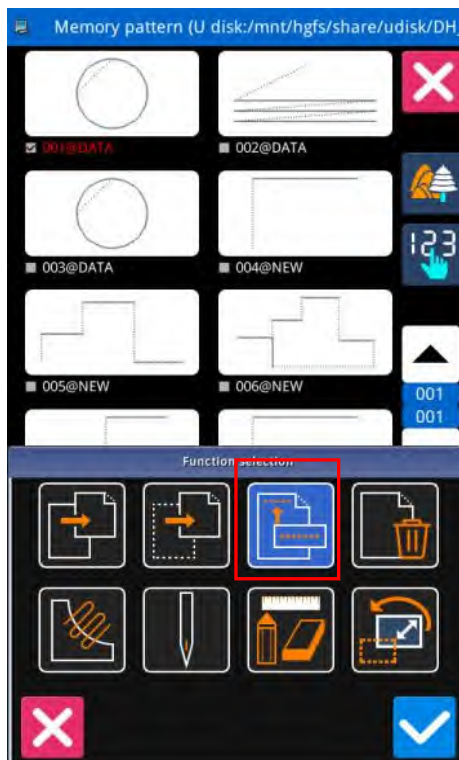
[Note]: The exportew/vdt format can be set by operating the B-6 parameters (export other formats), which is stored in the root directory of the U disk by default.



2.4.7 Pattern Shearing



When cutting the pattern, first select the pattern to be modified, and then click the OK button  to enter the Function selection, click the pattern shearing button , the modifier button will turn blue, and then click the OK button to cut the selected pattern to the U disk.

2.4.8 Save Pattern As





When saving the pattern, first select the pattern to be modified, then click the OK button  to enter the Function selection, click the Save Pattern button , the modification button will turn blue, and then click the OK button to save the selected pattern as sewing format NSP.

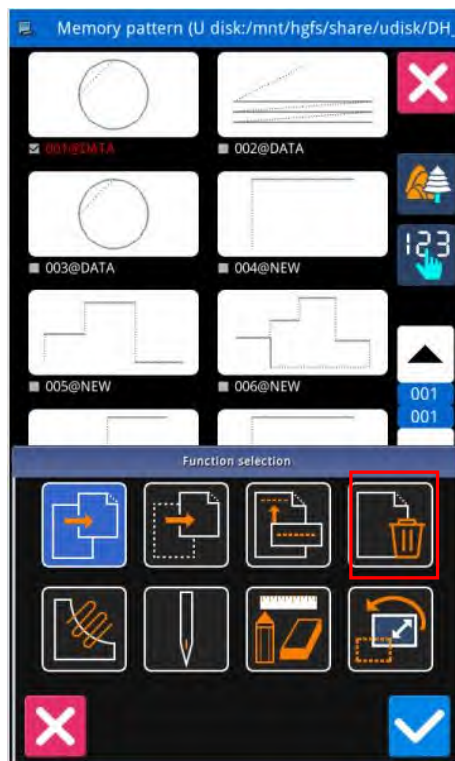






Function Description:

No.	Function	Content
A	Pattern name input display	Display the entered pattern name.
B	Pattern number input display	Display the pattern number entered.
C	Memory remaining function	Check the amount of memory left
D	Display storage location	 : The storage location is memory  : The storage location is U disk
E	Input keyboard	Used to enter a name or number.
F	OK button	Save the current settings and exit to the previous interface
G	Display Memory Content	Display memory content
H	Select Memory/U Disk	Select read memory or U disk pattern, switch to choose U disk or memory
I	Keep the same number pattern	<input checked="" type="checkbox"/> 保留同号花样 : Select Keep the same number pattern to save the same pattern but different pattern numbers <input type="checkbox"/> keep the same number pattern : Do not select Keep the same number pattern
J	Clear all input characters	Clears all entered characters when pressed.
K	Return button	Return to the previous interface



2.4.9 Pattern Delete

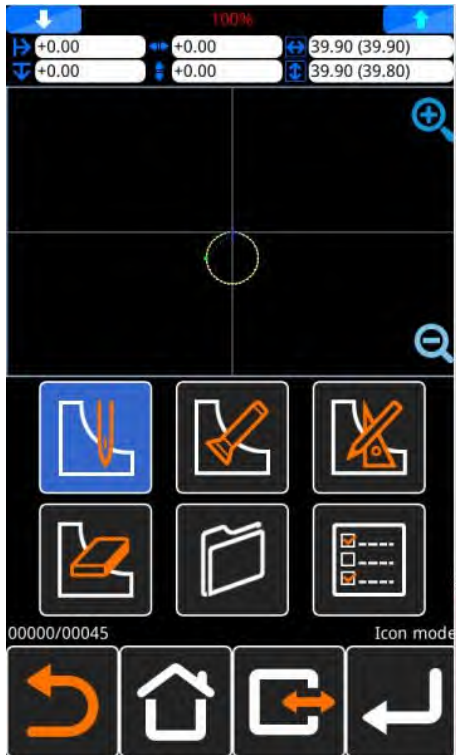


When deleting a pattern, first select the pattern to be deleted, then click the OK button  to enter the Function selection, click the delete button , the delete button will turn blue, and then click the OK button to delete the selected pattern. NOTE: The current sewing pattern cannot be deleted.

2.4.10 Open the Pattern in Another Program

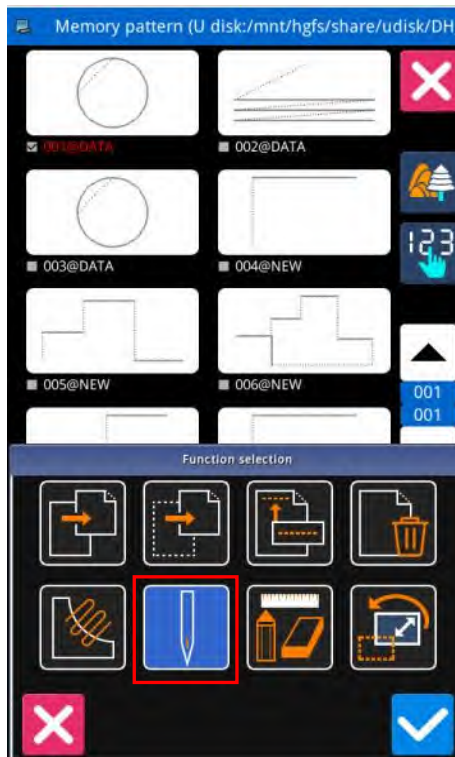




When opening a pattern in another program, first select the pattern, then click the OK button  to enter Function selection, click the program button , the program button will turn blue, and then click the OK button to enter another program.



For details, please refer to icon printing.

2.4.11 Sewing Pattern





When sewing a pattern, first select the pattern to be sewn, then click the confirm button  , Then select  , at this time the car seam key will turn blue, and then click the confirm key will enter the car seam interface.

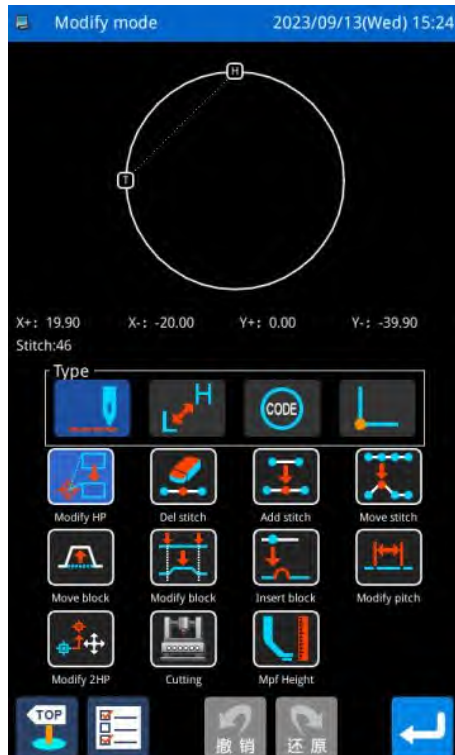


Enter the sewing interface, you can sew patterns.

2.4.12 Modify the Pattern



When modifying a pattern, first select the pattern to be modified, then click the OK button  and the back-to-origin button to enter the Function selection, click the modifier button , then the modifier button will turn blue, and then click the confirm button to modify the selected pattern.



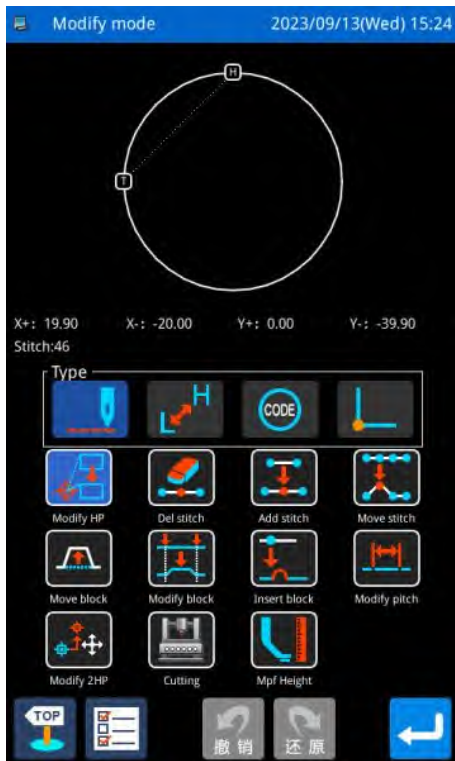
Enter Modify mode to modify various functions. For details.




Function Description:

No.	Description
A	Modify sewing data
B	Modify sewing machine speed
C	Modify the input code
D	Modify outline shape points
E	Modify the starting point
F	Delete a point
G	Insert a point
H	Move a point in a line segment
I	A line segment can be moved in a graph
J	Modify a segment in a graph
K	Insert a segment in a drawing
L	Modify Pitch
M	Second origin position modification
N	laser cutting
O	Modify material thickness
P	Return to main directory
Q	Parameter settings
R	Enter

2.4.13 Modify the Input Code



Click the button  to enter the interface of modifying the input code. There are the following functions to choose from. For details, please refer to the pattern-making manual**



Add the code



Delete the code



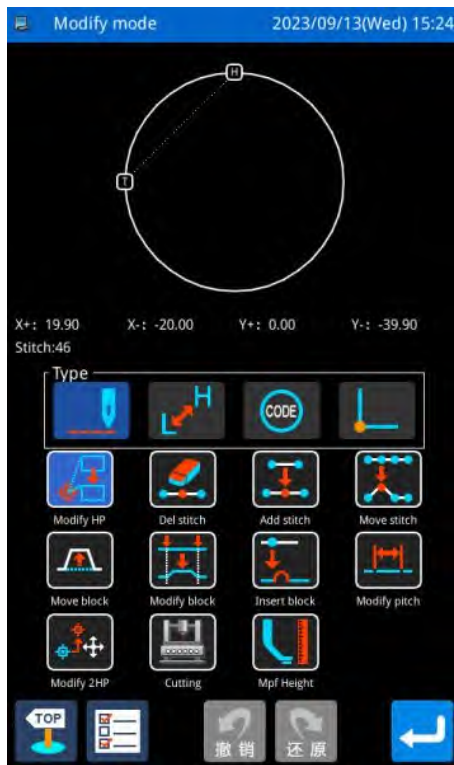
Modify the code




Knee point deceleration



2.4.14 Modify Outline Shape Points



Click the button  to enter the interface of modifying contour points, and the following functions can be selected. For details, please refer to the version description**



移动形状点 Move shape points



删除形状点 Delete shape points



添加形状点 Add shape points





尖锐平滑 Sharp and smooth

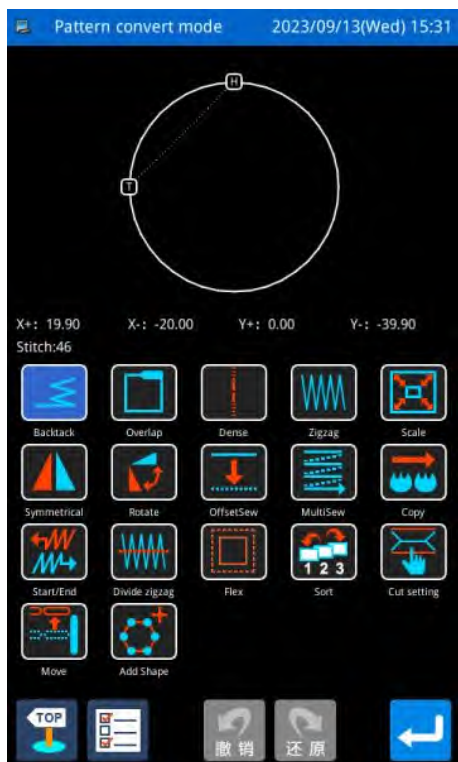


删除要素 Delete feature

2.4.15 Conversion Mode



When converting a pattern, you need to select the pattern to be converted first, then click the OK button  and the Origin button to enter the Function selection, click the shift button , the shift button will turn blue, and then click the OK button to modify the selected pattern. .

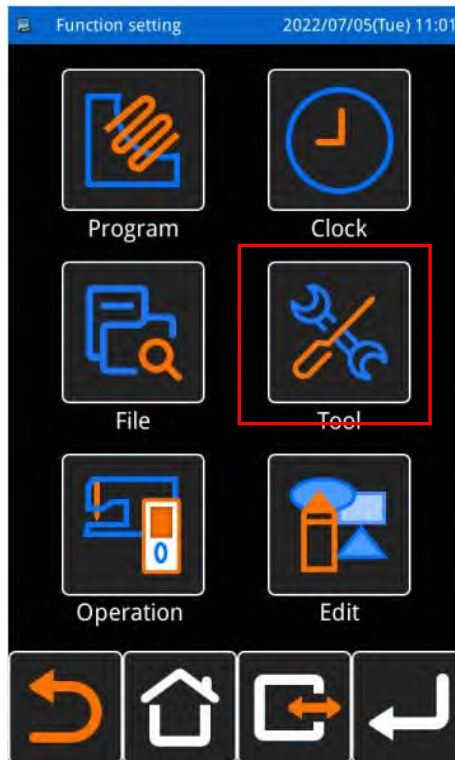




Entering the conversion mode, various functional modifications can be made. For details, please refer to ** (playing board)

2.4.16 Supported Data Formats

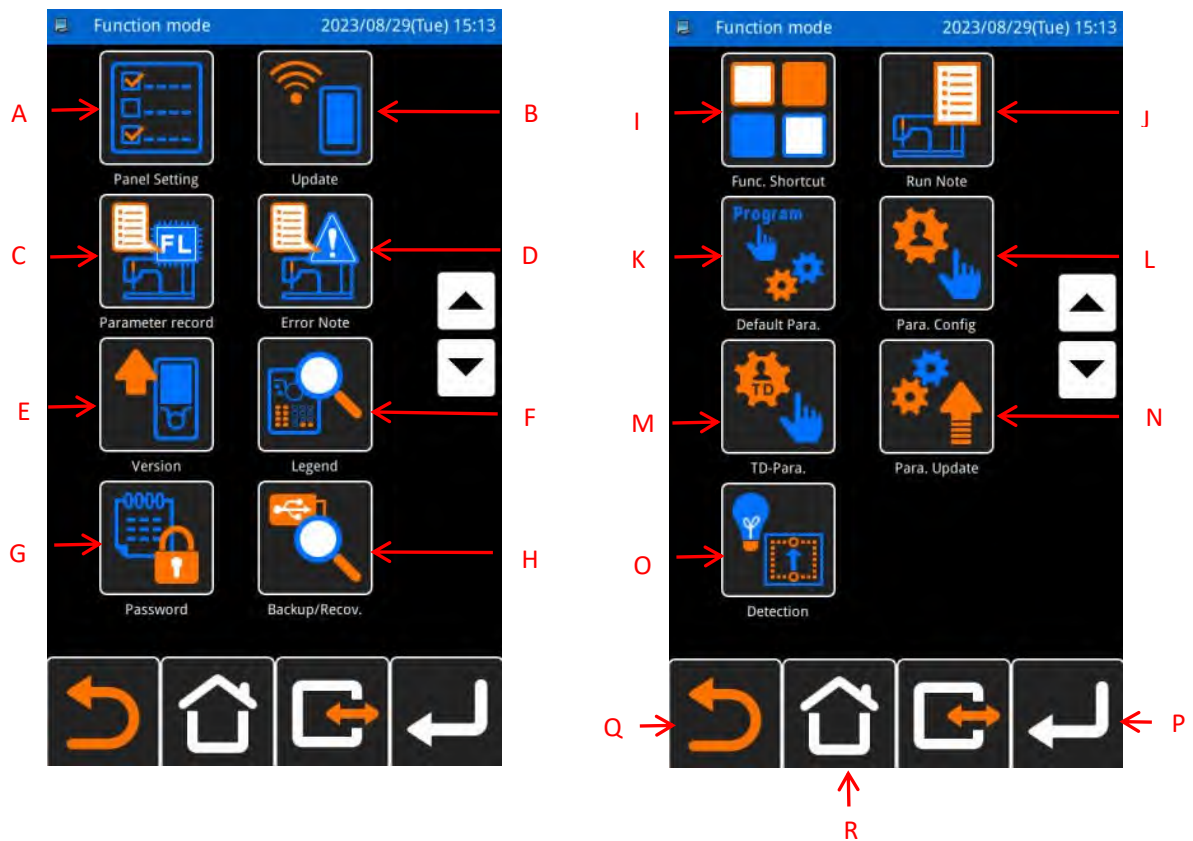
Currently, the imported pattern formats are: NSP format, VDT format, EMB format, DST format, DSB format, DSZ format, SEW format.

2.5 Function Mode



Operate the function catalog button  in the Main interface to open the function catalog mode, and then press the tool button  to display a variety of function tools, that is, enter the function Setting Mode.

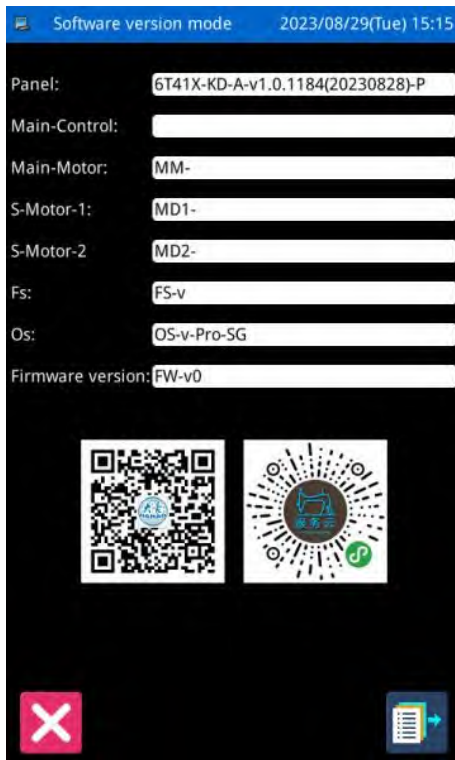
Function setting interface:





Function Description:

No.	Function	Content
A	Panel Setting	Query the system software version.
B	Update	Enter software upgrade mode.
C	Parameter record	Mechanical parameter setting status preview
D	Error Note	Backlight, keylock, brightness and other display settings are available.
E	Version	Users can edit this shortcut according to their favorite functions, which is displayed on the main page for easy user operation.
F	Legend	
G	Password	Provide user installment password function.
H	Backup/Recov.	The parameter settings are saved to a USB stick for future restore operations.
I	Fuc.Shortcut	View alarm statistics.
J	Run Note	View operational statistics
K	Default Para.	Provides recovery of default parameters and custom read-write capabilities.
L	Para.Conflg	System parameters and TD system parameters can be set
M	TD-Para.	Master parameters can be read
N	Para.Update	The password is set for each action entry in parameter mode.
O	Detection	You can detect whether the parts are functioning properly
P	Return	Click Back to the parent page
Q	Main interface	Click back to the main interface
R	Confirm key	Confirm that the command is executed

2.5.1 Software Version Query Mode




Press the version query button  in the function setting interface to enter the version query mode.

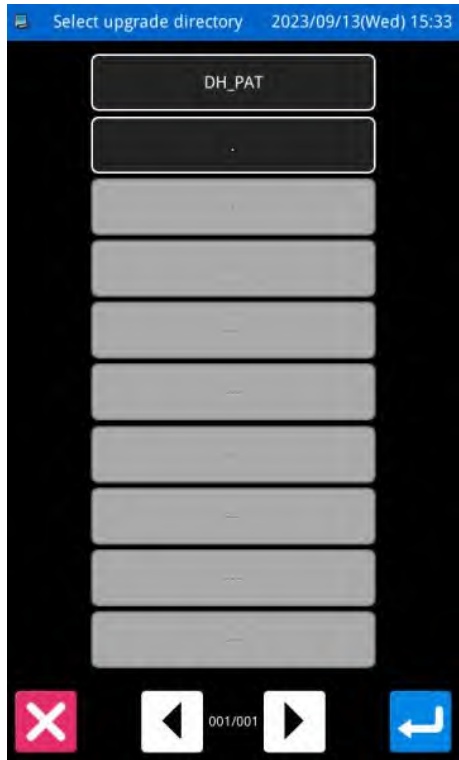
Press the button  to export the software version to the root directory of the U disk, the file name is version.png.


2.5.2 Software Version




Press the upgrade button  in the function setting interface, and it is required to enter the manufacturer ID. After the input is correct, enter the software upgrade mode.

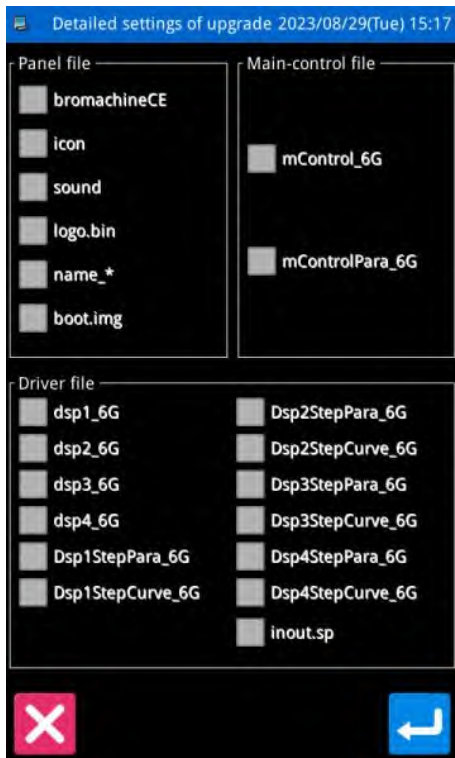
The upgrade software needs to be placed in the "update" directory of the U disk.






First, click the [Select Directory] button  to select the directory where the software to be upgraded is located.

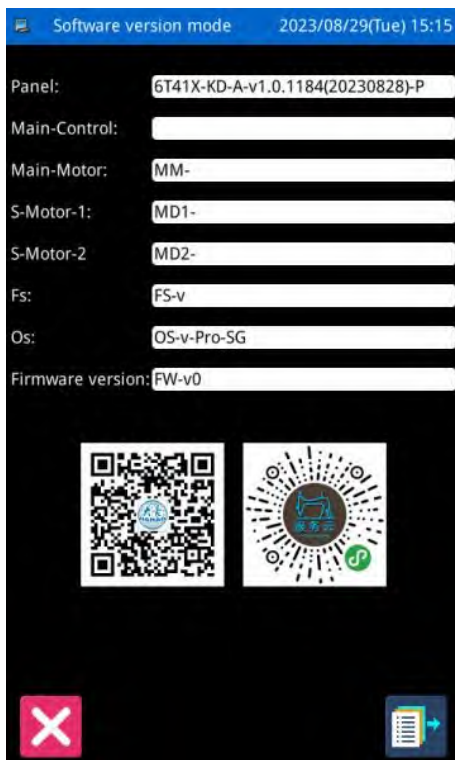



After selecting it, click the OK button  to return to the software upgrade interface and display all the upgradeable software information in the directory.



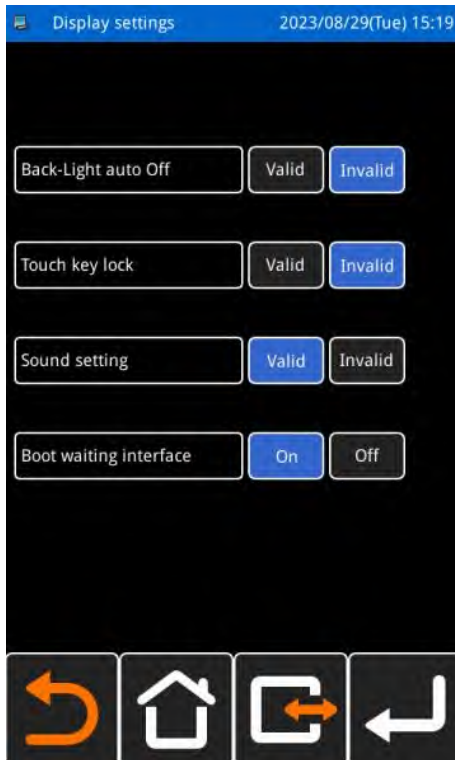
Then click the [Detailed Settings] button  to select the details of the software to be upgraded.


Click the confirm button  to return to the software upgrade interface, press the confirm button  again to upgrade the corresponding software.

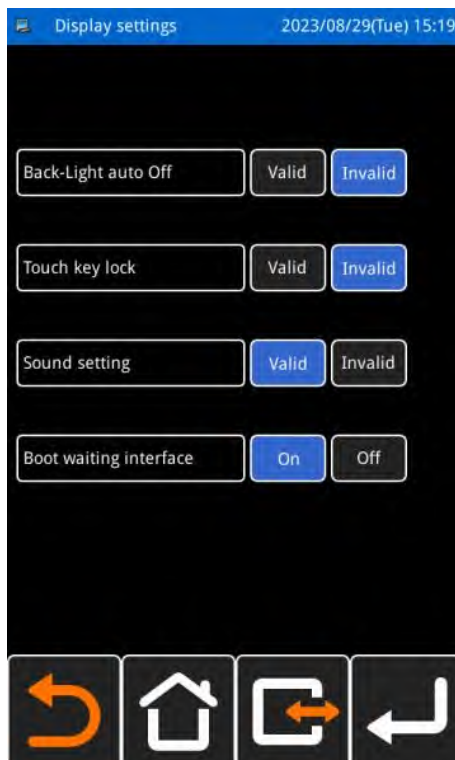


Click the [Version] button  to query the current panel software version.

2.5.3 Panel Settings



press the panel setting button  in the function setting interface to enter the display Setting Mode, and some settings related to display and operation can be adjusted in this interface.




1. Automatically turn off the backlight
When the set time is up, the screen backlight will be turned off automatically
Set range: 1: 9 minutes
Factory set value: "disabled"
Release method: when the backlight is off, just click anywhere on the panel to light up the screen.



Release button lock

When the unlock button lock is "valid", it will enter the state of preventing misoperation, all buttons will be inactive state (displayed in

gray), and the OK button  will directly return to Main interface P1 after operation.

Factory setting: "Disabled"

Release method: Press and hold the time display on the Main interface for more than 5 seconds, and wait for the "beep" sound to complete the release. (After the release, the release button lock function will be set to "Disabled")

Main interface speed setting method

Divided into two categories: gear and true value, factory setting: "Gear"

Main interface pattern display setting

Setting range: 0~6 (0: black, 1: cyan, 2: red, 3: green, 4: blue, 5: purple, 6: yellow)

Factory setting: 0: Black

Adjust LED light brightness

Adjustment range: 0~100


Factory setting: 50

2.5.4 Function Shortcut Buttons



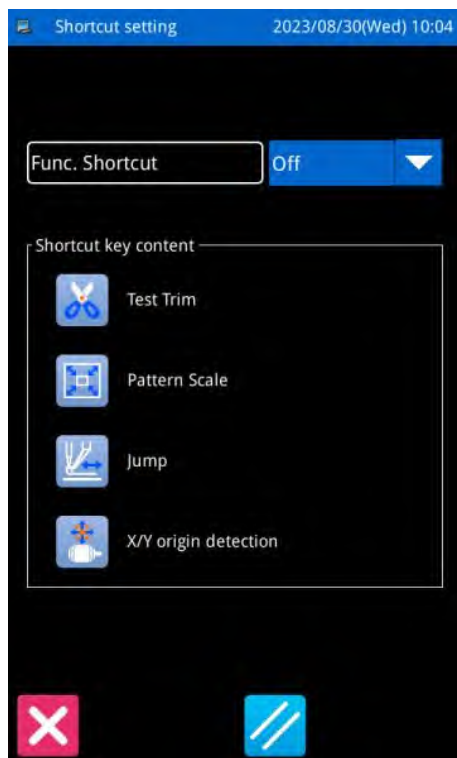
The shortcut button function is used to set the four function buttons of Main interface, and users can set common function buttons by themselves.

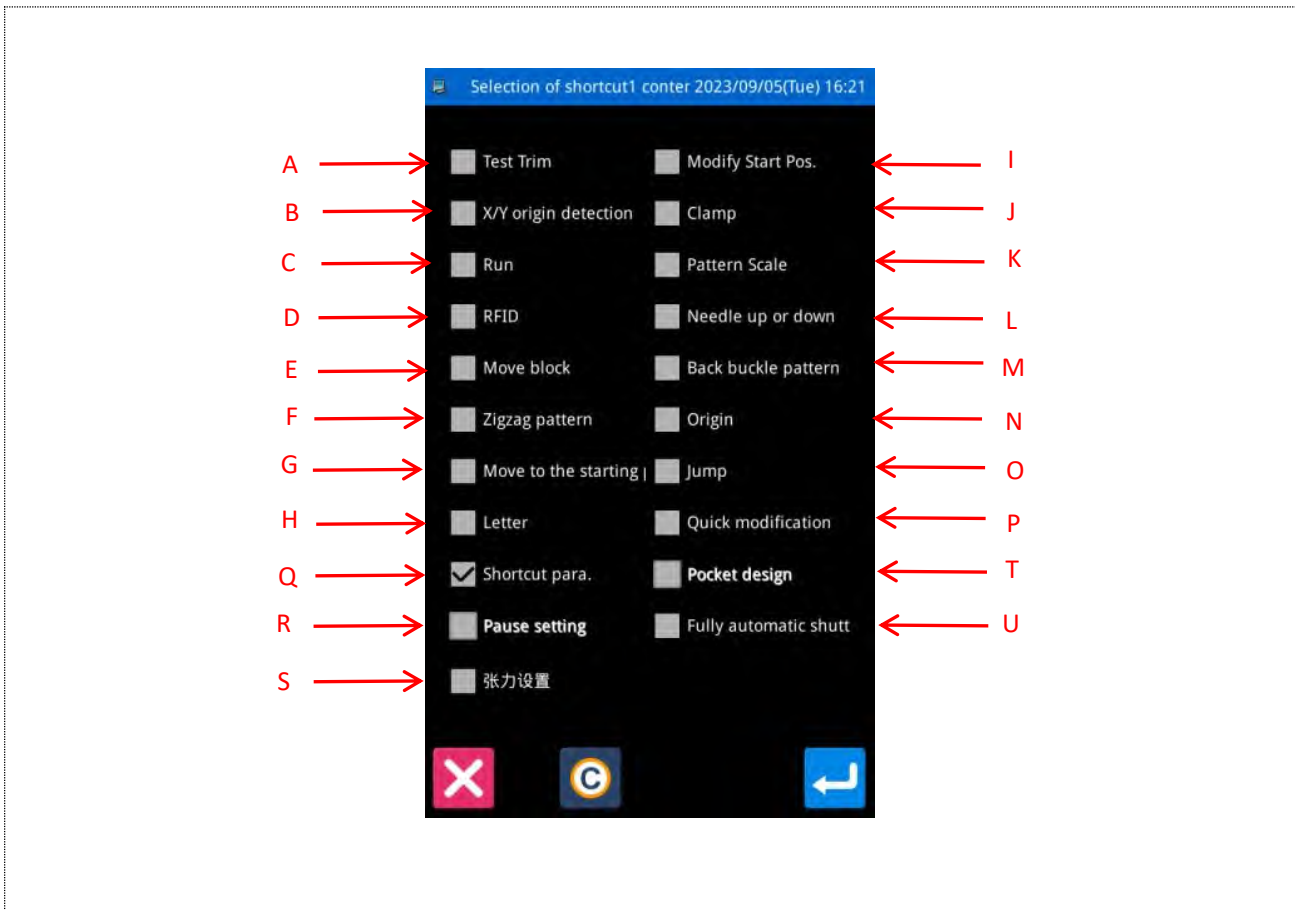
Set function shortcuts

Press  to enter the function setting

directory, find the tool  to enter, and then click the function shortcut button to enter the shortcut button setting mode.

The shortcut buttons include functions such as test thread trimming, XY Origin Detection, start, RFID, segment movement, human child sewing pattern, move to the starting point, letter embroidery, starting point modification, frame pressing, graphic zoom, needle machine up and down, back button pattern, origin, jump, and quick modification; four shortcut buttons can be arbitrarily Selection in the shortcut button content.





Function Description:

No.	Function	Content
A	Test Trim	Click the test thread trimming button when the pattern number of the Main interface is not flashing, and the thread trimming action will be executed at this time.
B	XY Origin Detection	Check the position of the XY sensor by moving the arrow buttons to confirm whether the sensor is normal
C	Run	Click the start button when the pattern number on the Main interface does not flash, and then start sewing.
D	RFID	Click this function to enter the RFID Settings interface. For details of the function, please refer to 2.2.11
E	Move Black	Modify the position of any pattern
F	Zigzag pattern	Set Click to enter the pattern setting of the herringbone stitching template. After setting the applicable parameters, click the tick button to pop up the prompt module, click the error button to save and exit.
G	Move to start point	The frame moves to the seam start position
H	letter	Enter the interface of letter embroidery and pattern making
I	Modify Start Pos.	Modify the seam start position
J	Clamp	control frame lifting
K	Pattern Scale	Make the pattern zoom in and zoom out settings
L	Needle up or down	Adjusting the current needle position
M	Back buckle pattern	Generate the back button pattern, click to enter the value setting interface, after setting the parameters, click the Enter button to save the pattern at this time




N	Origin	Click the origin button to return to the origin
O	Jump	Jump to specify Stitch
P	Quick modification	Enter pattern making, pattern modification and conversion mode
Q	Shortcut parameter.	You can customize the parameters on the parameter setting screen. You can open the shortcut parameters and use the selected parameters directly
R	Pause setting	Pause setting
S	Tension setting	Tension setting
T	Open-pocket design	Open-pocket design
U	Automatic shuttle change	Automatic shuttle change



After opening the function shortcut button, return to the Main interface. The icon of the shortcut button is displayed on the Main interface.

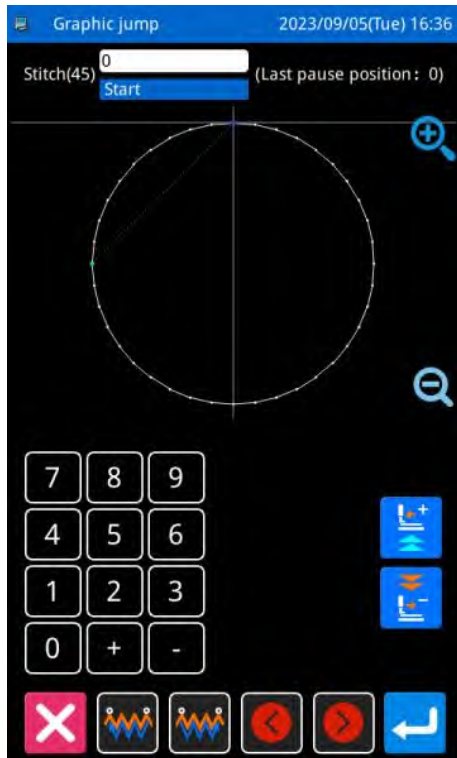


1. Graphic zoom shortcut buttons

Click the graphics zoom button  in the Main interface, and then click the OK button  to enter the graphics zoom interface. This interface is used to set input method, horizontal ratio, vertical ratio and set center point. After setting, click OK button  to save.

NOTE: Save can be overwritten, overwriting the previous parameters;

It is also possible to save a new document and exit without saving.



2. Jump to the specified Stitch

Click the button to move forward and back in a single step, set the number of needles through the number key, click the button to determine the direction of the appropriate action. Press the button to directly jump to the sewing position of the previous section/next section, and directly jump to the location of the next/previous function code.



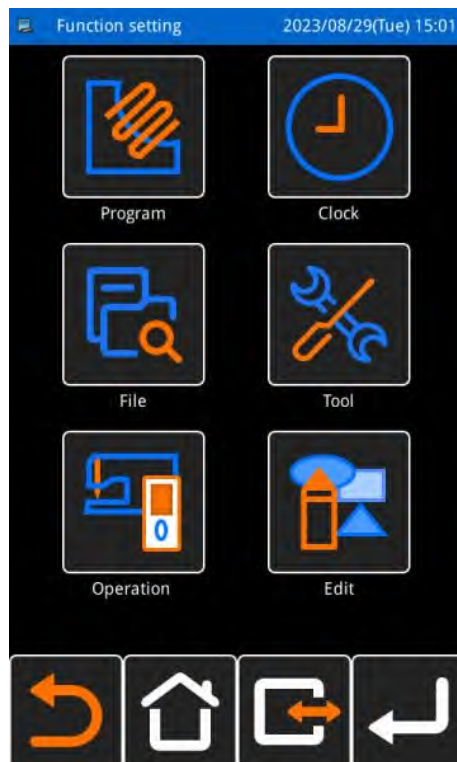
3. XY Origin Detection



Click the XY Origin Detection shortcut

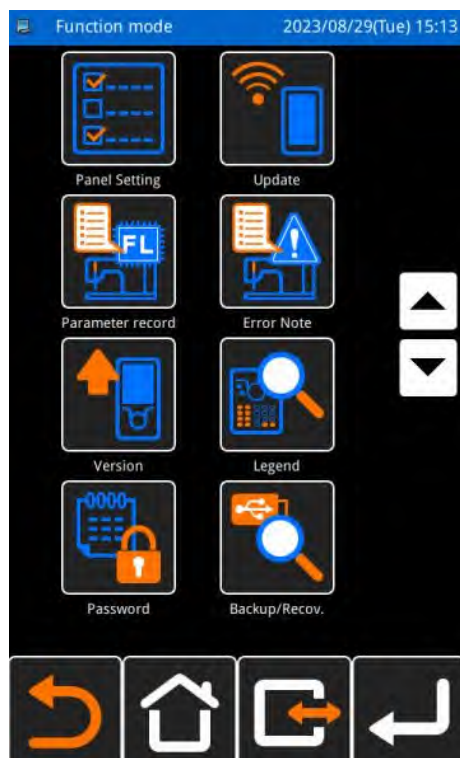


in the Main interface to enter the XY Origin Detection interface. For details, see [3.7.5 XY Origin Detection]

2.5.5 Instalment Password Function

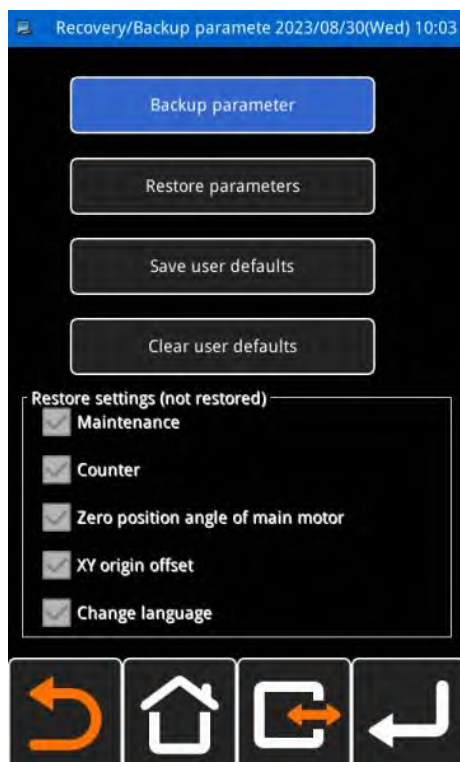



Press the button  in the function setting interface to enter the function mode interface. Click the button  to import the password, please contact the manufacturer for details.





2.5.6 Restore Backup Mode

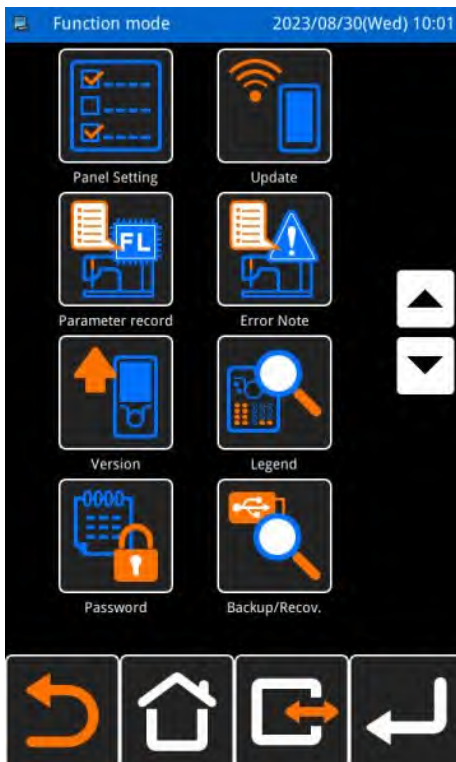



Press the restore and save button  in the function setting interface to enter the restore and save mode.

Save the changed parameter settings to the U disk for subsequent restoration operations.

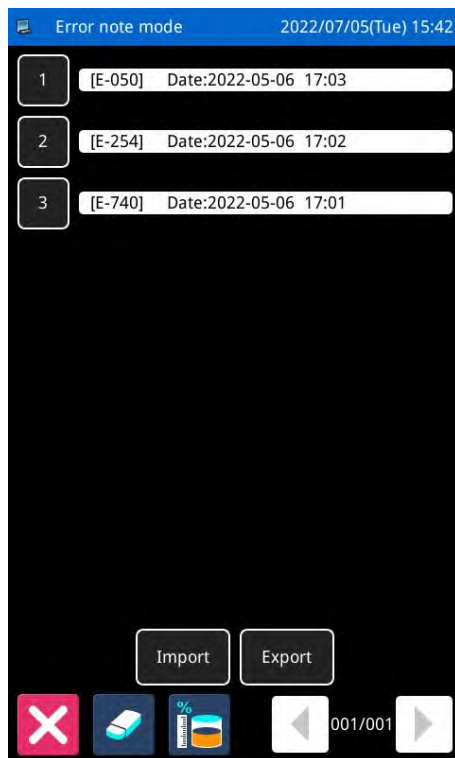
For details, please refer to [3.6.4 Parameter Restoration and Saving] section.

2.5.7 Alarm Record Mode



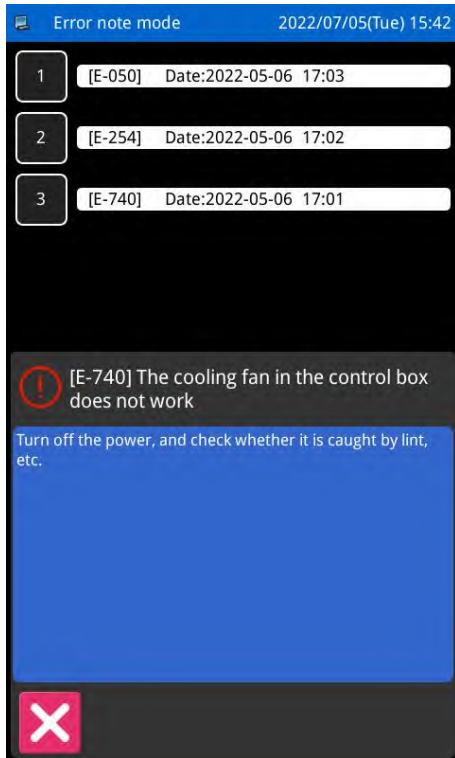
Press the alarm record button  in the function mode to open the alarm record.

2.5.8 Alarm Record Mode

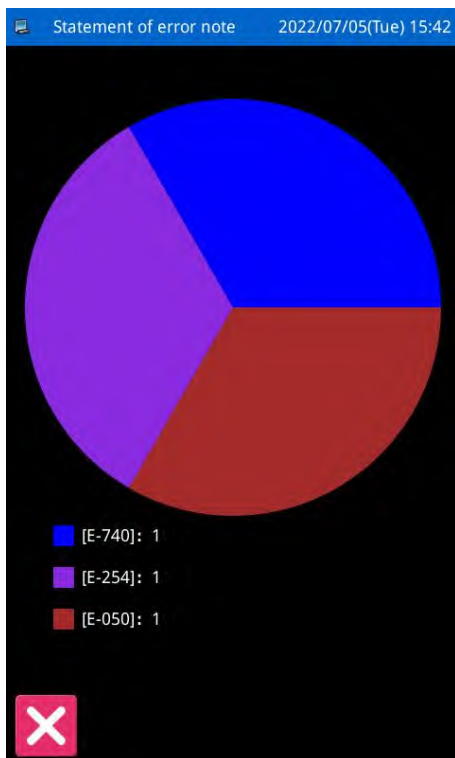



Press the alarm recording button in the function setting interface to enter the alarm recording mode.

The alarm content recently occurred in the system is displayed in the alarm recording mode, and the smaller the sequence number is, the newer the time of occurrence of the alarm information is.

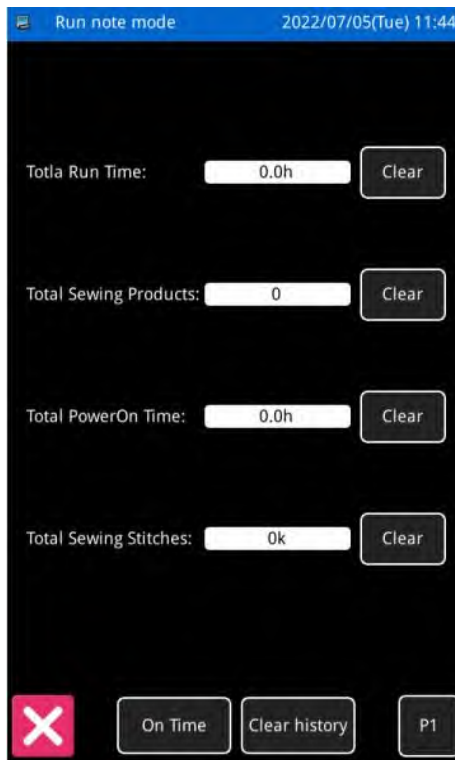



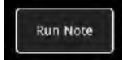
After pressing the number button 1, the error message and solution will be displayed.



Press the "Data Statistics View" button  to enter the alarm record statistics interface.

2.5.9 Operation Record Mode



In the function directory interface, enter the tool  and press the operation record button , and it will ask to enter the manufacturer ID. After the input is correct, the operation record mode can be entered.

A. Cumulative running time: record the total sewing time of the machine

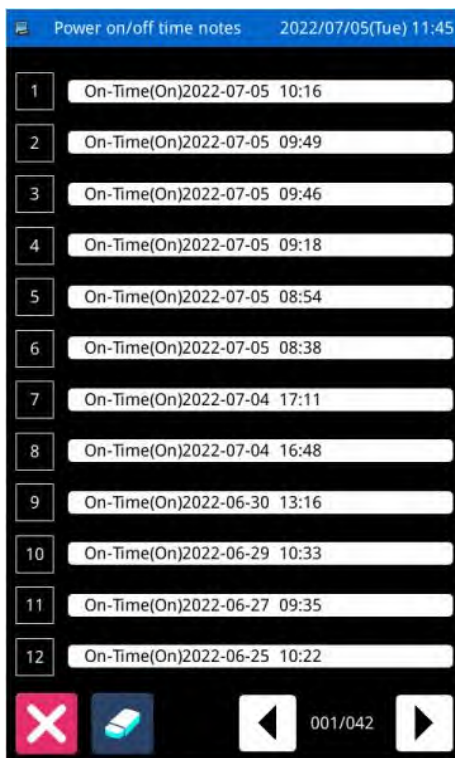
B. Cumulative sewing pieces: record the total number of sewing patterns


C. Cumulative Power Time: Record the sum of machine Power time

D. Cumulative sewing count: record the sum of machine sewing Stitch

In addition, click the "Clear" button to clear the count value.

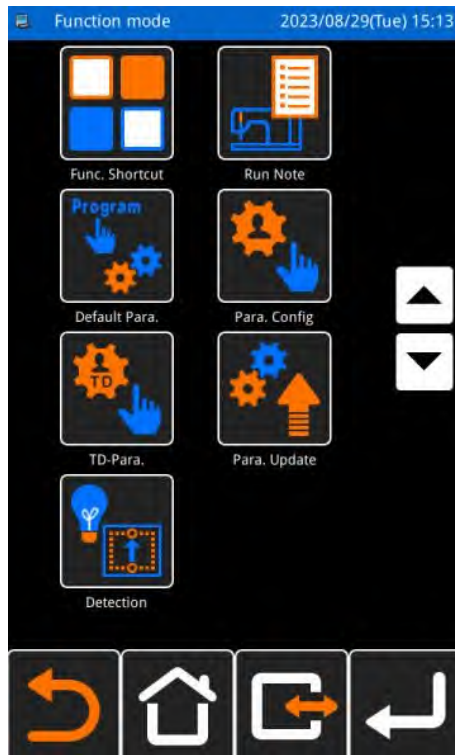
[NOTE] If the accumulated number of sewing pieces is cleared, the "cumulative count" in the auxiliary information column of the Main interface will also be cleared to zero.






Press the [On Time] button  in the operation record mode interface to view the list of historical start times.

Use the page button   to turn pages, and click the clear button  to delete the boot record.

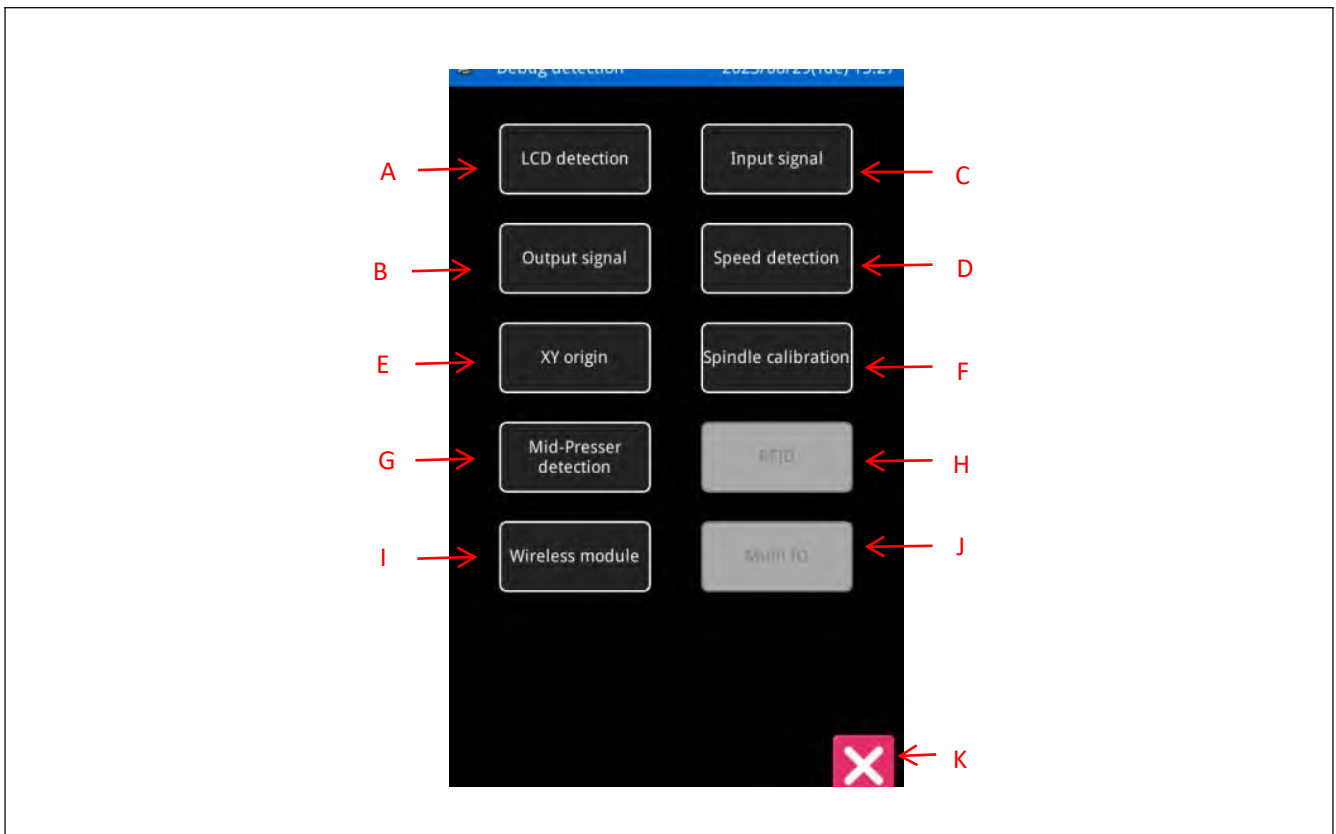
2.5.10 Description of Detection Mode



Operate the function catalog button  on the Main interface, that is, open the function catalog mode, then press the tool button  to display various tools, and then press the detection function button  to enter the detection mode.

NOTE: Power-on standby mode can also be used in detection mode

Function Description:



No.	Function	Content
A	LCD detection	Used to detect liquid crystal displays. [For details, see 2.2.6]
B	Input signal	Used to detect various types of switches, sensors and other input signals. [For details, see 2.2.4]
C	Output signal	Used to detect various types of Presser foot, thread trimming and other output signals. [For details, see 2.2.5]
D	Speed detection	Used to detect the spindle motor speed. [For details, see 2.2.7]
E	XY Origin	Used to detect the origin of the X and Y axes. [For details, see 2.2.9]
F	Spindle calibration	Used to display and set the installation angle of the spindle motor. [For details, see 2.2.10]
G	Mid-Presser detection	Used to detect Middle Presser foot [see 2.2.8 for details]
H	RFID	Used to set up RFID [see 2.2.11 for details]
I	Wireless module	Used for wireless module 2 detection.
J	Multi IO	Multifunctional IO
K	Exit	Exit detection mode and return to the Main interface.



2.6 Operation Setting Instructions

The operation setting is mainly used to set each parameter. For the description of each parameter, please refer to [3.6.6 Parameter Setting Table].

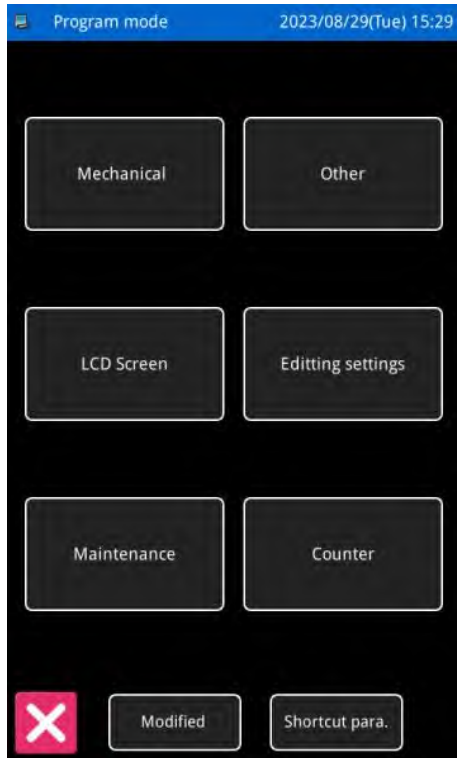
2.6.1 Operation Settings



1. How to enter the operation setting:

Enter the display function menu button  in the Main interface, that is, open the function setting menu mode, and then press the operation setting button .

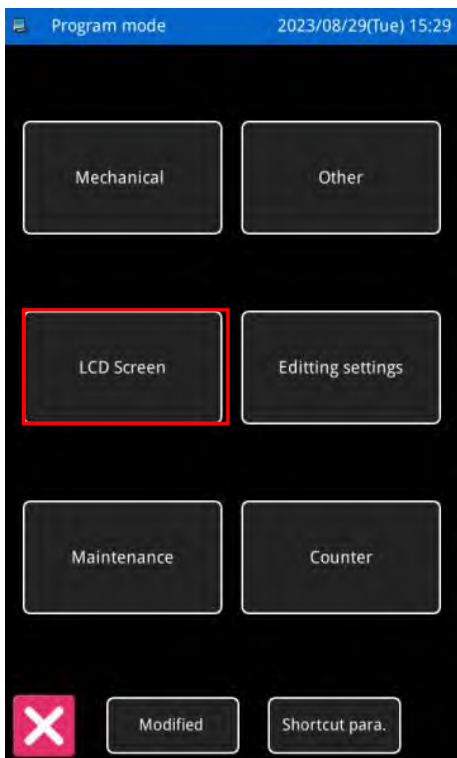
Select the parameter type as shown in the figure.

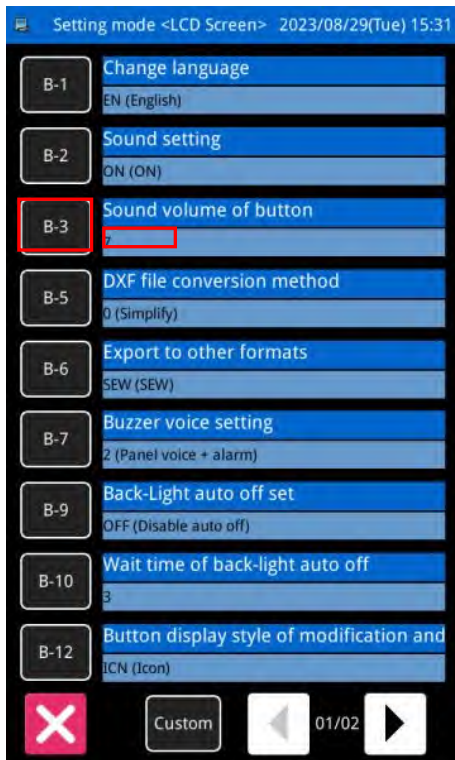


3. Example Description:

A. Mode selection

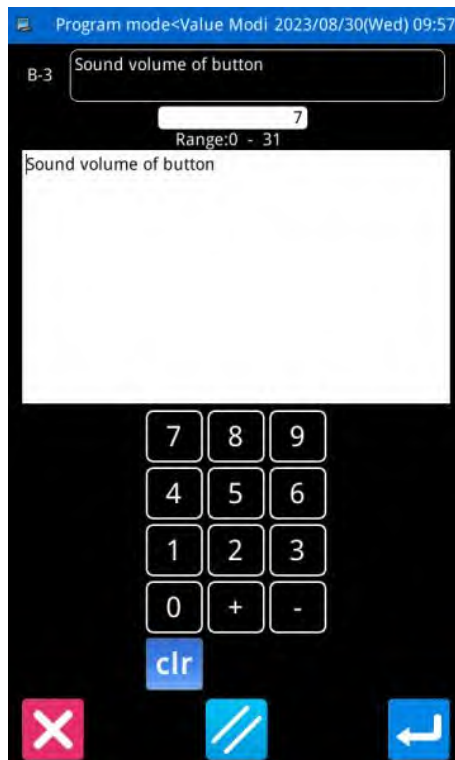
Press the button to select the parameter item to be set, and the "Internal parameter setting screen" will be displayed. The "LCD screen" button is selected here.





B. Internal parameter setting screen

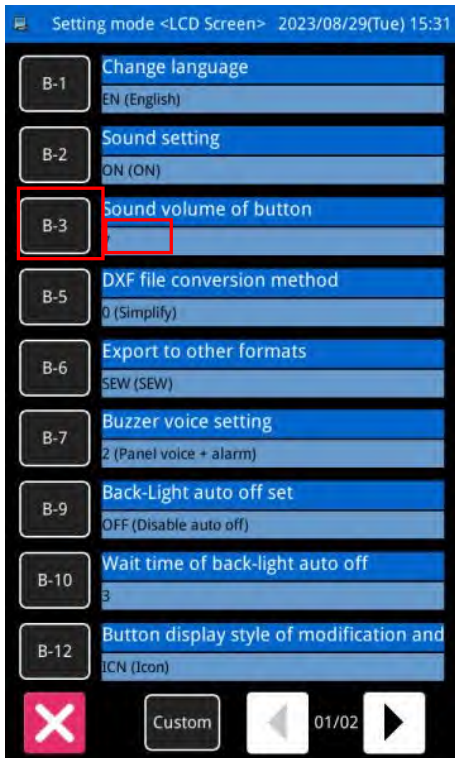
Pressing the button to select the parameter to be set displays the "setting value change screen". (The "B-3" button was pressed here.)



C. Change parameter settings

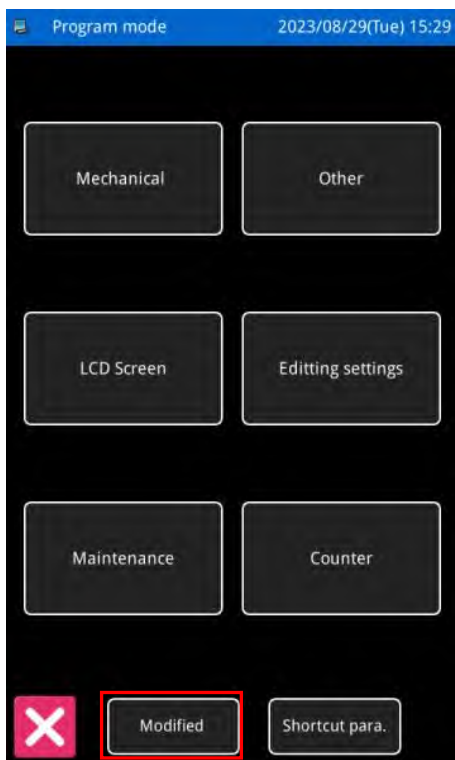
After inputting the setting value and changing the setting Content of the parameter, press the OK button to confirm.

NOTE: The parameters can be changed freely within the displayed range, and the parameter values cannot be set outside the range.



D. Changed parameter setpoint check

Return to the "Internal parameter setting" screen. To check the changed settings, Press the Exit button to leave.



E. Return to the mode selection screen

Return to the "Mode Selection" screen. Because the setting value has been modified, the "Modified Setting" button will appear.

Press the button  to return to the Main interface.

To view the "Modified Settings" content, please click the "Modified Settings" button.



F. Enter the modified parameter Setting Mode

The content of the parameter changes will be displayed in this interface. To change again, change it again in this interface (here you can press the "B-3" button).

To select some modified parameters to restore, you can choose to press the button marked with the parameter name (here you can press the "foot pedal operation mode"). Then press the "Select Restore" button, and then follow the prompt information Content to operate.

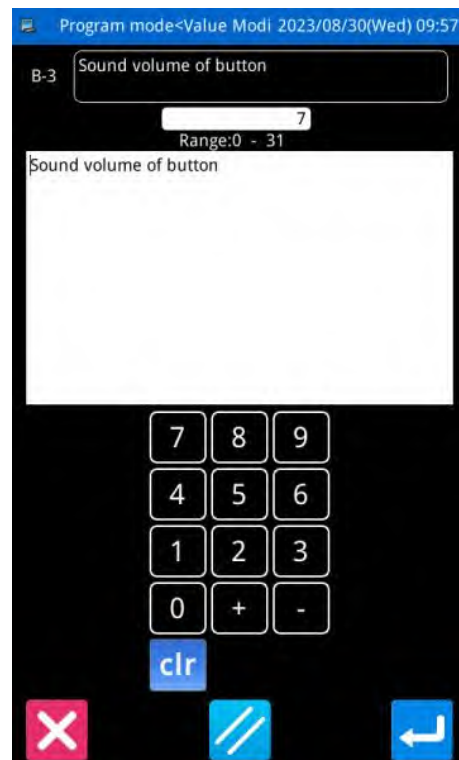
To restore all the changed settings to the factory settings, please press the "Restore All" button, and then follow the prompt message Content to operate.

2.6.2 Description of Parameter Setting Classification

There are two types of parameter settings: selection type and input type, as shown in the following figure:



Selection type




Input type

2.6.3 Restore and save parameters

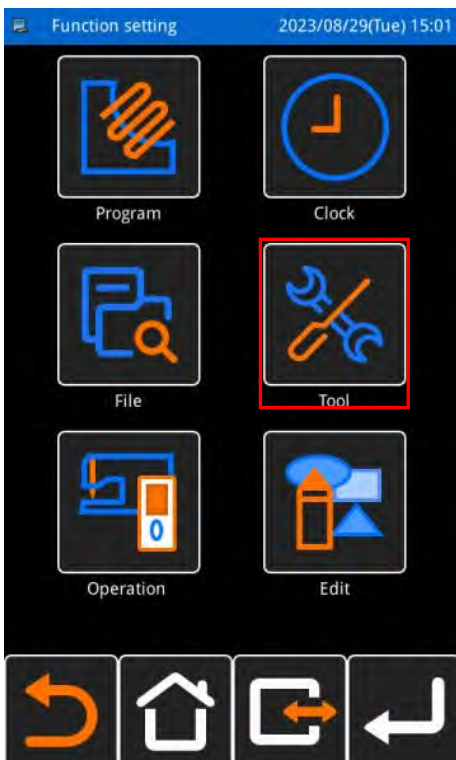
Save the changed parameter settings to the U disk for subsequent restoration operations.

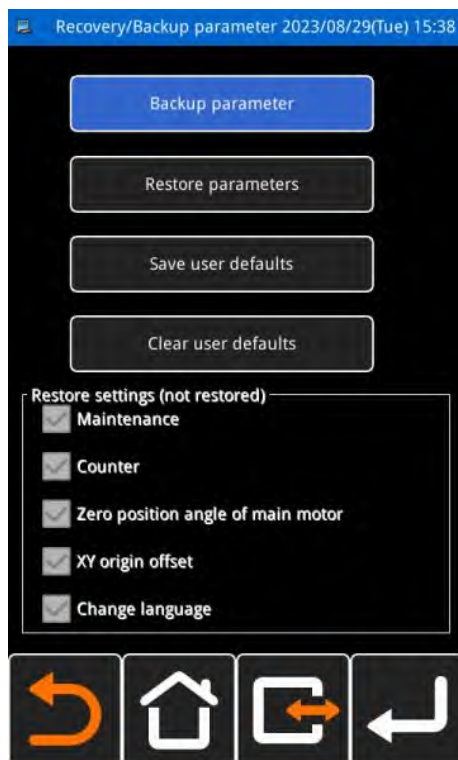
1. Enter the method of parameter restoration and saving:

Display the function catalog button  in the Main interface, that is, open the multi-category catalog mode, and then press

the tool button  to enter the function mode.


Press the restore button in the function mode interface.





2. Save parameters

Enters the restore backup parameter interface, which is backup user parameters by default.

After inserting the U disk, press the OK button .


Once the operation is successful, a "bakParam" directory will be automatically created on the U disk, and the "backup.broparam" file in this directory is the parameter backup file.

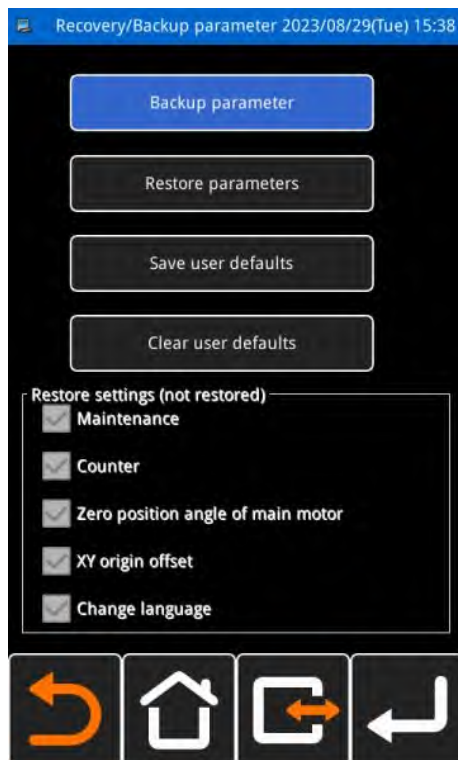
[NOTE]If there is a file with the same file name, it will be overwritten with new data, and the original data will disappear.



3. Restore parameters


Click the "Restore Mode" button, you can select the parameters not to be restored at the bottom of the interface, and then press the OK

button  to execute the parameter restoration operation, and return to the previous screen after the operation is successful.

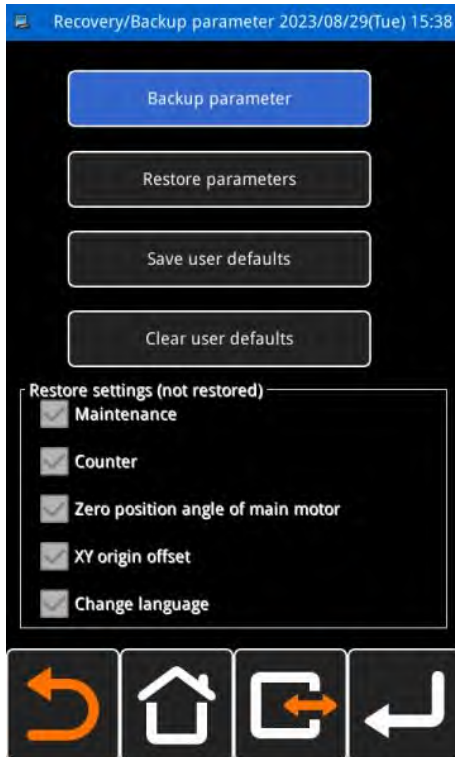


4. Write user default values

Select the "Write user default value"


button, press the OK button , the system will prompt to enter the permission 2 password, and you can use the current parameter value as the default value for parameter recovery after the input is successful.

(The permission password is obtained from the administrator)



5. Clear user defaults

After the user default value is successfully written, the "Clear User Default Value" button is optional. After selecting it, press the OK



button  to clear the user default value.

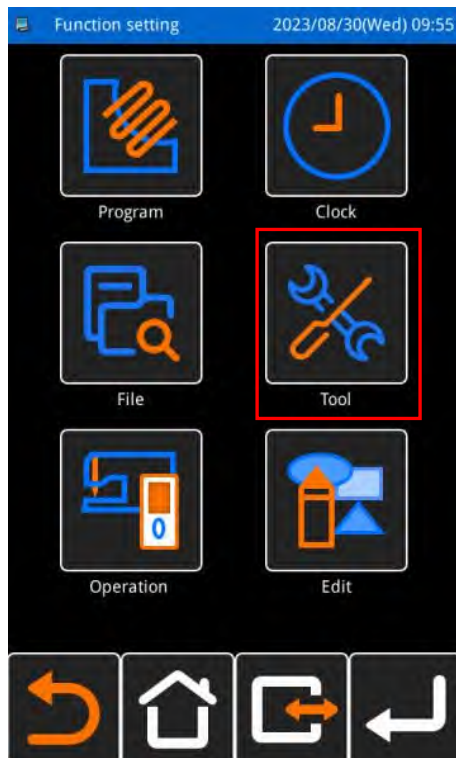
2.6.4 Restore Default Parameters

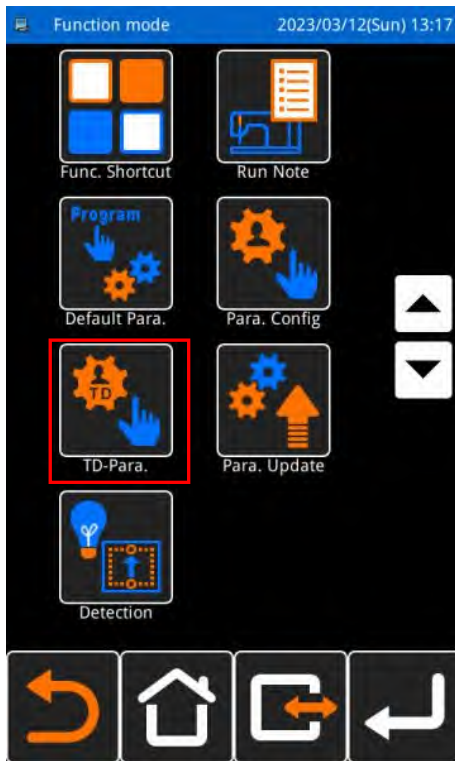
The parameter setting value is restored to the factory value, and the user can also save the parameters set by themselves for future calls.



1. How to enter the default parameter recovery method:

Display the function catalog button  on the Main interface to open the multi-category catalog mode, and then press the tool button  to enter the function mode.





Pressing the default parameter button in the function setting interface will require you to enter a password (the initial password is the manufacturer ID). When the password is entered correctly, enter the default parameter mode.



2. Call default parameters

Click the corresponding default parameter item and press the "Model Default" button to reload the corresponding default parameter.

After loading, it will automatically return to the previous screen.

[NOTE] Some important parameters (such as "Spindle Motor Parking Angle", etc.) cannot be restored to factory defaults during this operation.



3. Save user parameters

Press the "Custom" button to enter the custom parameter setting interface, where the user can save the set parameters.

Press any one of these buttons

User parameter02(None) ~ User parameter18(None) to

determine where the parameters are saved, and then click the button to save. Rename and clear custom parameters.

After saving, it will automatically exit and return to the previous screen.



4. Call the user to save the parameters

The method of entering this interface is the same as above. Observe that the "custom parameter xx (yes/no)" button displays Content, if the parentheses display "yes", it means that user parameters are stored in this position.

Click this button, and then press the button to reload the corresponding parameter setting value. After the operation is successful, it needs to be restarted.

2.6.5 Parameter Setting Table

Mechanical Parameters

Code	Description	Details	Unit	Step	Range	Factory Default	Type
001	Presser foot rise time after sewing	Presser foot rise time after sewing			OFF: Raise at the end position of the needle ON: Move to the sewing start point and rise	1	Selection
002	Lowering left and right separation presser foot (pneumatic)	Left and right separation Presser foot lowering action			0: Left and right Presser feet descend at the same time 1: Presser foot descends first left and then right 2: Presser foot descends right and then left	0	Selection
003	Clamp lowering action (Motor)	Motor press frame to simulate pedal control mode			0: Simulate descending (Presser foot descends in proportion to the pedal stepping amount, and starts after all stepping on it) 1:1 gear down (down when the pedal is stepped into the 1st gear, start after the 2nd gear) 2: 2nd gear down (the pedal stops in the middle after the 1st gear, and starts after the 2nd gear is stepped down)	2	Selection
050	Work mode of presser foot	Presser foot working mode			1: Standard single pedal, Presser foot automatically rises the seam 2: The single pedal does not rise, the Presser foot rises due to the stepping of the foot switch 3: Standard double pedals, the Presser foot automatically rises, and	2	Selection

the Presser foot falls due to the pressing of the Presser foot switch, the left and right order can be changed with the storage switch NO.002

4: When the double pedals do not rise, the Presser foot rises during the pressing of the Presser foot switch.

5: Left and right Presser foot -- The 2-stage Presser foot of the intermittent Presser foot, press the Presser foot switch to step into the first gear, the left and right Presser foot, when stepping into the second gear, the order of the intermittent Presser foot descends (rises at the same time)

6: The left and right alternating 2-stage Presser foot, the left and right sequence of the 2-stage Presser foot action can be interchanged every time the sewing is started, from right to left when starting

7: Forward/reverse pedal, when the start switch is stepped in, press the Presser foot down-sewing machine to start the sequence to control the forward, when the Presser foot switch is stepped in, it will rise in the opposite order, and the left and right order can be used

				<p>for Memory switch NO.002 to change</p> <p>8: Based on the two-stage Presser foot that is stepped in twice, in the case of electromagnetic specification (single pedal), when the foot switch is stepped in. Press the Presser foot to stop at the middle position--Presser foot descends--the sequence of sewing machine start-up is controlled to move forward, and the Presser foot rises when the foot switch is retracted</p> <p>9: Standard triple pedal, electromagnetic specification, presser foot stops at the middle position when stepping on the left pedal, presser foot descends when the pedal (center) is pressed, and the sewing machine starts when the pedal (right) is activated. For pneumatic specifications, the left and right pedals (center) control the up and down movements of the left Presser foot and the right Presser foot, respectively.</p> <p>10: For triple pedals with Origin Detection, use the right pedal (center) exclusively for Origin Detection, use the left pedal for the up</p>	
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					<p>and down movements of the left and right Presser feet, and use the start pedal (right) to start the sewing machine</p> <p>11: For the special triple pedal Origin Detection, use the right pedal (center) exclusively for Origin Detection, use the left pedal for the up and down movements of the left Presser foot, step on the start pedal (right), and start the sewing machine after the right Presser foot is lowered</p> <p>12. Double pedal quick single step start mode</p>		
051	Clamp action before origin detection	Whether the front pressure plate of Origin Detection is allowed to move			<p>OFF: Before Origin Detection, the up and down movements of the Presser foot cannot be performed</p> <p>ON: Before Origin Detection, the up and down movements of the Presser foot can be performed</p>	1	Selection
052	Presser foot movement during the seam break program	Presser foot movement during the seam break program			<p>0: Presser foot automatically rises</p> <p>1: Step into the foot switch, Presser foot rises</p> <p>2: Function code decision</p>	0	Selection
053	Delay time after intermediate presser up	Delay time to prevent cliding with mold in movement	ms	1	0~999	100	Input
054	Intermittent Presser foot fall time	Intermittent Presser foot fall tim			0: The lowering is linked with the Presser foot switch, but does not lower at the feed	0	Selection

					retreat position 1: Link down through the Presser foot switch 2: Presser foot switch is not interlocked, it descends when sewing starts		
055	Pneumatic pressure frame output polarity reversal	Pneumatic pressure frame output polarity reversal			0: disabled 1: The valve output of the pneumatic specification is reversed 2: Since the two positioning valves are corresponding, the output of the reverse valve is output at the same time	0	Selection
056	Whether winding is allowed before origin detection	Whether winding is allowed before origin detection			OFF: Can not be wound ON: can be wound	0	Selection
057	Presser foot movement when the sewing start point moves after Origin Detection	Presser foot movement when the sewing start point moves after Origin Detection			OFF: Presser foot is pressed down after returning to the origin ON: Presser foot lifts up after returning to origin	1	Selection
058	Presser foot movement at the end of sewing	Presser foot movement at the end of sewing			OFF: The platen is automatically lifted after sewing is completed ON: The platen does not lift up after sewing is completed	0	Selection
059	Clamp weight selection	Clamp weight selection			-1: light 0: Standard 1: heavy	0	Selection
100	Sewing start speed	Sewing start speed			OFF: The speed of 1~5 stitches at the start of sewing depends on the setting of Memory switch No. 151~155 ON: 1st stitch 400rpm, 2nd stitch 400rpm, 3rd	0	Selection

					stitch 600rpm, 4th stitch 900rpm, 5th stitch 2000rpm		
150	Reverse stitch up	Reverse stitch up			OFF: disabled ON: The motor reverses when the upper shaft stops, and the needle bar returns near the dead center	0	Sele ction
151	Fast start speed of 1 st stitch	Fast start speed of 1 st stitch	x100R PM	1	2~30	4	Input
152	Fast start speed of 2 nd stitch	Fast start speed of 2 nd stitch	x100R PM	1	2~30	8	Input
153	Fast start speed of 3 rd stitch	Fast start speed of 3 rd stitch	x100R PM	1	2~30	12	Input
154	Fast start speed of 4 th stitch	Fast start speed of 4 th stitch	x100R PM	1	2~30	27	Input
155	Fast start speed of 5 th stitch	Fast start speed of 5 th stitch	x100R PM	1	2~30	27	Input
156	5 stitches speed before the end of sewing	5 stitches speed before the end of sewing	x100R PM	1	4~27	27	Input
157	4 stitches speed before the end of sewing	4 stitches speed before the end of sewing	x100R PM	1	4~27	27	Input
158	3 stitches speed before the end of sewing	3 stitches speed before the end of sewing	x100R PM	1	4~27	27	Input
159	2 stitches speed before the end of sewing	2 stitches speed before the end of sewing	x100R PM	1	4~27	12	Input
161	Penetration enhancement	Penetration enhancement			OFF: invalid ON: When the Sewing machine motor is locked, the penetration force enhancement action is performed	0	Sele ction

162	Sewing speed change regulation based on sewing pitch change	Sewing speed change regulation based on sewing pitch change			OFF: The sewing speed fluctuates according to the sewing pitch of the sewing data ON: The sewing speed matches the maximum pitch of the sewing data and is fixed at the minimum speed (ON when the sewing speed is to be changed according to the pitch change)	0	Selection
163	The max sew speed	The max sew speed	x100R PM	1	2~30	27	Input
164	No trimming	No trimming			OFF: Thread trimming according to sewing data ON: All thread trimming actions are disabled	0	Selection
165	Reverse needle rising angle	Usually the upper needle position, the needle bar height increases in the negative direction, each digit corresponds to 4 °	°	1	-15~0	0	Input
200	1stitch detection feed 1stitch detection feed mode	1stitch detection feed 1stitch detection feed mode			OFF: Press the foot switch to automatically run to the last stitch ON: Press the foot switch to advance stitch by stitch. After the feeding starts, feed the cloth stitch by stitch by turning the handwheel	0	Selection
250	Machinical origin reset at the end of sewing	Whether search home position at sew end			OFF: At the end of sewing, the feed plate returns to the starting position ON: At the end of sewing, the feed plate returns to the starting position through the	0	Selection

					machine origin		
251	Feed speed	Feed speed			1:100mm/s delay 2: 200mm/s delay 3:300mm/s delay 4:400mm/s delay 5:500mm/s delay	2	Selection
252	High-speed test feed	High-speed test feed			OFF: Usually, step in the foot switch at a slow speed and the first gear is high-speed feeding ON: The test feed is the same as the sewing speed	0	Selection
253	Origin Detection method	Origin Detection method			OFF: Step on the foot switch (start switch) when the program number is flashing ON: When the program number is flashing, press the dedicated external input switch (IN3, the foot switch/start switch is invalid)	0	Selection
254	Movement route from the machine origin to the origin position	Movement route from the machine origin to the origin position			0:1 (upper right), 3 (lower left) quadrant XY linkage, 2 (upper left) quadrant X first then Y, 4 (lower right) quadrant first Y then X 1: First X and then Y to the origin; first Y and then X to the starting point 2: First Y and then X to the origin; first X and then Y to the starting point 3: First Y through the center to the front, X through the center to the right, Y then to the center, Y reverse back, X reverse to the center; starting point: X first, then Y	0	Selection

260	Change all feed synchronization	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
261	Change the feed synchronization of the first stitch at the sewing start	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
262	Change the feed synchronization of the second stitch at the sewing start	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
263	Change the feed synchronization of the third stitch at the sewing start	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
264	Change the feed synchronization of 3 stitches before the end of sewing	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
265	Change the feed synchronization for 2 stitches before the end of sewing	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
266	Change the feed synchronization for 1 stitch before the end of sewing	-10: Advance, 0: Standard, 10: Delay. Each number corresponds to 8 °.		1	-10~10	0	Input
267	Feeding	When all the feed	stitch	1	0~99	0	Input

	synchronizati effective stitches	synchronization is changed from the initial value (No.260 setting), specify its effective Stitch: 0: no limit 1~99: If the Stitch specified at the start of sewing is exceeded, return to the standard feed synchronization					
268	Change the reference of feed synchronizati on	Change the reference of feed synchronization			0: Feed start reference 1: Upper needle benchmark 2: Feed end reference 3: Speed linkage	1	Selec tion
270	Origin action when switching patterns	Origin action when switching patterns			0: Do not perform origin search operation 1: Do not perform origin search, but pass through the area center 2: Perform origin search operation	0	Selec tion
300	Production counter display	Production counter display			OFF: Bottom thread counter display ON: Production counter display	0	Selec tion
350	Control panel change restrictions	Control panel change restrictions			0: There is no restriction on changing the value set on the operation panel 1: Prohibit the change of program number, XY scale, sewing speed, lower thread count, intermittent height, digital tension value 2: Prohibit the change of program number, XY scale, sewing speed, intermittent height, digital tension value	0	Selec tion

					3: Prohibit the change of the program serial number 4: Prohibit the change of program serial number and XY scale 5: It is forbidden to change the program number, XY scale and sewing speed 6: Prohibit the expansion of XY scale (can be reduced) 7: Change of sewing speed is prohibited		
351	Change of memory switch	Change of memory switch			OFF: Allowed ON: Prohibited	0	Selection
352	Bottom Line Counting, Counting Methods for Production Counting	Bottom Line Counting, Counting Methods for Production Counting			0: Count in sewing data units 1: Count by tangent 2: Count when the sewing data is finished or the seam is stopped	0	Selection
353	Count synchronization for bottom line count	Count synchronization for bottom line count			OFF: Counting at the end of sewing ON: Counting at the start of sewing	0	Selection
354	Switch the program number according to the external switch	0: invalid 1~9: Switch the process No.NO. according to the selection input (IN1~IN5) 5bit		1	0~9	0	Input
355	Switch the broken seam number according to the external switch	0: invalid 1~9: According to the selection input (IN1~IN5) 5bit, switch the sewing No., corresponding to No. 1-31 (only valid for single sewing mode)		1	0~9	0	Input
356	Action after scanning	Action after scanning			0: off 1: After scanning the	0	Selection

					barcode,switch to the scanned pattern number 2: After scanning the barcode,switch to the pattern number and move to the pattern origin 3: After scanning the barcode,switch to the pattern number,move to the pattern origin,and automatically sew once		
400	User program	User program			OFF: Disabled ON: User program mode is valid	0	Selection
401	cycle program	cycle program			OFF: Disabled ON: When sewing with the user program, the sewing is performed in sequence according to the set program	0	Selection
402	Expansion and reduction ratio mm display	Expansion and reduction ratio mm display			OFF: Display in % ON: Display in mm	0	Selection
403	Selection of seam pattern	Selection of seam pattern			0: Continuous seam breaking mode (before seam breaking detection, the seam breaking menu is invalid) 1: Continuous seam breaking mode (the seam breaking menu is always valid) 2: Separate break seam mode	0	Selection
450	Starting point movement during user program transition	Starting point movement during user program transition			OFF: After stepping on the pedal to start, move to the starting point of the new pattern ON: When switching patterns, move to the starting point of the new pattern	0	Selection
452	Restriction of	Restriction of			OFF: Unlimited	0	Selec

	setting change in user program	setting change in user program			ON: Prohibit the content change of the user program		tion
460	Sewing area limitation in X direction	Sewing area limitation in X direction	mm	1	0~2000	300	Input
461	Sewing area limitation in Y direction	Sewing area limitation in Y direction	mm	1	0~2000	200	Input
462	Expand and shrink the datum point	Expand and shrink the datum point			0: The center position within the Sewing range 1: Sewing start point 2: Pattern Center	0	Selection
464	XY linkage of enlargement/reduction ratio	XY linkage of enlargement/reduction ratio			OFF: Disabled ON: The setting of the enlargement/reduction ratio is the same on XY (invalid in user program)	0	Selection
465	Memory of parallel movement amount of sewing pattern	Memory of parallel movement amount of sewing pattern			OFF: Changes in program numbers or expansion/reduction ratios are initialized when the power is turned OFF. ON: When the power is turned off, the program number or expansion/reduction ratio change cannot be initialized, and initialization is invalid.	0	Selection
468	Switch the position to be avoided after the parallel movement	Switch the position to be avoided after the parallel movement			OFF: Disabled ON: Store the position after parallel movement as the point to be avoided	0	Selection
550	Needle cooling device	Needle cooling device			OFF: none ON: Yes, the pin cooling pin is specified in the output IO configuration	0	Selection
551	Thread loosening setting at the start of	Stitch setting for the thread releaser to open at the start of	stitch	1	0~3	0	Input

	sewing	sewing					
552	Thread release synchronization during thread tangent	-10 Advance, 0: Standard, 10: Delay, each number corresponds to 8 degrees		1	-10~10	0	Input
554	Thread-Break Detection Device	Thread-Break Detection Device			0: Turn off 1: Normal (BRK) 2: Pulse (IN1) 3: Chronograph (IN1)	0	Selection
555	Detection Sensitivity of Thread-Break Detection Device	Detection Sensitivity of Thread-Break Detection Device			OFF: 5 stitches at the start of sewing, 3 stitches in the middle of sewing ON: 10 stitches at the start of sewing, 3 stitches in the middle of sewing	0	Selection
556	Flip telescopic device	Toggle and telescoping control pins are specified by the output IO configuration			0: none 1: Flipped Presser foot (insert the flip code to confirm the flip position) 2: Telescopic Presser foot (parking, the designated action position of the plate flip code) 3: Telescopic Presser foot (without parking, the designated action position of the plate flip code)	0	Selection
557	External wire sweeping device	External wire sweeping device			0: invalid 1: Use electromagnetic sweeping device 2: Use the pneumatic wire sweeping device, and specify the wire pulling function pin in the output IO configuration	1	Selection
558	External error monitoring input	External error monitoring input			OFF: Disabled ON: Valid, the pin is configured by the input	0	Selection

					IO to specify the detection pin corresponding to insufficient air pressure		
559	Output for work indicator	Output for work indicator			OFF: Disabled ON: In the output IO configuration, specify two output pin functions as work indicator (work) and standby indicator (error)	0	Selection
560	Automatic return device	Automatic return device			0: invalid 1: Standard work 2: Sewing starts because the cassette platen sensor is ON 3: The start switch is valid even if the card platen sensor is OFF	0	Selection
561	When setting the automatic injection device to start automatically	(Memory Switch NO.560=2) Timing from sensor detection to start of sewing 0~999: The time until the automatic start after the box is checked		1	0~999	100	Input
562	Change of digital tension setting value	Change of digital tension setting value			OFF: Tension No. can be changed irrespective of sewing data ON: Only the tension No. 0 detected in the tension No. 0 and sewing data can be changed	1	Selection
563	Permission for 2-stage tension (when using spring-type main adjuster)	Permission for 2-stage tension (when using spring-type main adjuster)			0: invalid 1: Use two tensions 2: Use two tensions 3: Use two tensions 4: Use two tensions	0	Selection
564	Maximum thread release	Maximum thread release force			0: Invalid (at the end of sewing, the loose thread	0	Selection

	force when raising the spring-loaded main adjuster	when raising the spring-loaded main adjuster			is open) 1: Thread loosening force is strengthened (at the end of sewing, the thread loosening state is closed. When the thread loosening is opened, it will be closed after about 5 minutes) 2: Maximum thread release force (The thread release is closed at the end of sewing. When the thread release is opened, it will be closed after about 1 minute.)		
566	Thread clamping device (thread sweeping replacement type)	Thread clamping device (thread sweeping replacement type)			OFF: Disabled ON: Use the wire clamping device	0	Selection
567	Tension condition when loosening the thread	Tension condition when loosening the thread			OFF: release ON: do not release	0	Selection
568	Thread release aid	Thread release aid			OFF: Disabled ON: Use auxiliary thread release device (thread release operation is valid when Memory switch NO.564=0)	0	Selection
650	How to cancel the error stop state	How to cancel the error stop state			0: Press the RESET button 1: Press the RESET button or Pause Switch 2: Press the RESET button or external switch (IN3)	0	Selection
651	Needle stop position when sewing is interrupted	Needle stop position when sewing is interrupted			0: Stop at the lower needle 1: Stop at the Upper needle	0	Selection

	according to pause switch	according to pause switch			2: Stop at the Upper needle after thread trimming		
652	Tangent action when paused	Automatic thread trimming when paused			OFF: When returning from a pause, thread tangent operation ON: When returning from a pause, the thread tangent does not run	0	Selection
653	Entry method from pause to resewing	Entry method from pause to resewing			OFF: Pause Switch-->RESET button-->DN button-->Sewing start ON: Pause Switch-->RESET button-->Sewing start	0	Selection
655	Upper needle stop position monitoring sensor invalid	Upper needle stop position monitoring sensor invalid			OFF: The sensor is valid and the upper needle stop position error is detected [E110] ON: invalid	0	Selection
656	Return-to-origin in during pause	Return-to-origin during pause			OFF: After reset, move to the sewing start point ON: Return to origin is not performed, and move backward on the sewing path to the sewing start point	0	Selection
750	Coasting mode	Coasting mode			0: invalid 1: During the period of continuously stepping on the foot switch, after the Presser foot runs up and down once, it will work continuously (Presser foot does not move up and down when Memory switch NO.050=2, 4) 2: During the period of continuously stepping on the foot switch, after the Presser foot runs up and down twice, it will work continuously (Presser foot does not	0	Selection

					move up and down when Memory switch NO.050=2, 4) 3: During the period of continuously stepping on the foot switch, after the Presser foot runs up and down 3 times, it will work continuously (the Presser foot does not move up and down when Memory switch NO.050=2, 4)		
751	Coasting cycle time adjustment timer	Coasting cycle time adjustment timer	10ms	1	0~255	20	Input
756	Spindle angle display mode	Spindle angle display mode			OFF: Disabled ON: The spindle angle is displayed when the sewing machine is started	0	Selection
950	Input No based on expansion selection	Input No based on expansion selection			OFF: Disabled ON: The sewing machine starts when the expansion selection input IN1 is ON	0	Selection
951	Program No. output	Program number output			OFF: Disabled ON: Output V1~V4 Output the lower 4 bits of the program number: 1~15 are valid	0	Selection

Other

Code	Description	Details	Unit	Step	Range	Factory Default	Type
A-1	Trimming speed	Needle positioning angle after thread trimming	x10RPM		10~40	35	Input
A-2	Wire nipper type	Select a type of thread nipper			0: Mechanical clamp 1: Electronic clamp	0	Selection
A-3	Outer Presser foot type	Outer Presser foot type			0: Pneumatic (V5) 1: Electromagnet	0	Selection

					2: Motor		
A-4	The pinemaker turns on the current when threading the thread	The pinemaker turns on the current when threading the thread			0~250	0	Input
A-5	Intermittent Presser type	Intermittent Presser foot valve, stepping solenoid selection			0: Air valve 1: Step 2: Electromagnet	1	Selection
A-6	Setting for stroke of Intermediate presser	Intermittent Presser up and down standard value			0~220	150	Input
A-7	Second stage Presser foot enable	Second stage Presser foot enable			OFF: Disable ON: Enable	0	Selection
A-8	Second stage Presser foot height	Second stage Presser foot height			0~255	80	Input
A-9	Whether the presser raised when return to the origin	Whether the presser raised when return to the origin			0: do not lift the clamp 1: Lift the clamp	0	Selection
A-10	When returning to the origin, the stretch presser foot moves	When returning to the origin, the stretch presser foot moves			0: No action 1: Move out first and return to the origin 2: Return to the origin first and then move out	2	Selection
A-11	Delay time of putting out stretch presser	Delay time of putting out stretch presser			0~255	30	Input
A-12	Delay time of ascending stretch presser	Delay time of ascending stretch presser			0~255	45	Input
A-13	Delay time of descending stretch presser	Delay time of descending stretch presser			0~255	30	Input
A-15	X direction offset of laser cutting	X direction offset of laser cutting			-5000~5000	0	Input

A-16	Y direction offset of laser cutting	Y direction offset of laser cutting			-2000~2000	0	Input
A-17	Laser cutting speed	Laser cutting speed			1~9	1	Input
A-18	Laser suction switch	Laser suction switch			0: OFF: turn off 1: ON: Turn on	0	Select ion
A-19	Laser aspiration opening delay	Laser inhalation on delay			0~65535	100	Input
A-20	Laser aspiration shutdown delay	Laser aspiration shutdown delay			0~65535	100	Input
A-21	Delay before laser startup	Delay before laser startup			0~65535	100	Input
A-22	Delay after the laser head descends	Delay after the laser head descends			0~65535	100	Input
A-23	Delay after the laser head is raised	Delay after the laser head is raised			0~65535	100	Input
A-24	Inflection point deceleration method	Inflection point deceleration method			0: OFF: do not start 1: L-ON: Laser segment only 2: S-ON: Only the sewing section is activated 3: ALL: Both the laser segment and the sewing segment are activated	0	Select ion
A-25	Halt switch type	Halt switch type			0: Normally closed 1: Normally open	1	Select ion
A-26	Safe switch type	Safe switch type			0: Normally closed 1: Normally open	1	Select ion
A-31	Ratio of sewing speed	Ratio of sewing speed			70~100	100	Input
A-32	Cancel range protection	Cancel range protection			0: OFF: Range protection off 1: ON: Range protection on	1	Select ion
A-33	Spindle motor parking angle	Spindle motor parking angle			30~63	59	Input
A-34	Template	Template identity			0: OFF: turn off	0	Select

	identity setting	setting			1: ON: Turn on		ion
A-35	Template identity device	Template identity device			0: Useless 1: Barcode scanning equipment 2: RFID reading and writing equipment	0	Select ion
A-36	X offset of mark pen	X offset of mark pen			-5000~5000	0	Input
A-37	Y offset of mark pen	Y offset of mark pen			-2000~2000	0	Input
A-38	Running speed of mark pen	Running speed of mark pen			1~9	1	Input
A-41	The stroke height of the outer pressure of motor	The stroke height of the outer pressure of motor			15~25	20	Input
A-43	Presser foot to lower the number of stitches	Presser foot to lower the number of stitches			0~15	1	Input
A-44	Needle-up presser foot lowering height	Needle-up presser foot lowering height			0~40	0	Input
A-45	End presser foot to lower the number of stitches	End presser foot to lower the number of stitches			0~15	0	Input
A-46	End presser foot lowering height	End presser foot lowering height			0~40	0	Input
A-47	Traversal data whether to lift the needle	Traversal data whether to lift the needle			OFF:NO ON:YES	OFF	Select ion
A-48	Middle presser lowering delay	Middle presser lowering delay			0~255	0	Input
A-49	Skip slot air feed speed gear	Skip slot air feed speed gear			0~9	3	Input
A-50	Back seam speed setting	Back seam speed setting			0~9	3	Input
A-51	Template	Template			0: anytime	1	Select

	recognition timing selection	recognition timing selection			1: Falls the outer pressure frame		ion
A-52	Number of automatically activated sensors	Number of automatically activated sensors			1:1 sensors 2:2 sensors	2	Select ion
A-53	Pin reinforcement method	Pin reinforcement method			0: No hardening 1:1 stitch shrinkage 2: V hardening 3: Type N reinforcement 4: W reinforcement	0	Select ion
A-54	Number of reinforcement stitches	Number of reinforcement stitches			2~5	3	Input
A-55	End Hardening Mode	End Hardening Mode			0: No hardening 1:1 stitch shrinkage 2: Half stitch back 3: V hardening 4: Type N reinforcement	0	Select ion
A-56	End Number of reinforcing pins	End Number of reinforcing pins			2~5	3	Input
A-57	Laser bag opening function	Laser bag opening function					

LCD Screen

Code	Description	Details	Unit	Step	Range	Factory Default	Type
B-1	language selection	language selection			CH: Chinese EN:English Bur: Burmese KR:Korean TK:Turkish JP: Japanese VI:Vietnamese ITA:Italiano PT:Portuguese ES: Español	0	Select ion
B-2	Sound settings	Sound function settings			OFF: turn off ON: turn on	1	Select ion
B-3	Sound volume	Sound volume of		1	0~31	25	Input

	of button	button					
B-5	DXF file conversion method	DXF file conversion method			0: Simplify 1: Complex	0	Select ion
B-6	Export to other formats	Export to other formats			OFF:OFF SEW:SEW VDT:VDT	1	Select ion
B-7	Buzzer voice setting	Buzzer voice setting			0: Mute 1: Panel voice 2: Panel voice+alarm	2	Select ion
B-9	Back-Light auto off set	Back-Light auto off set OFF: disable auto off, ON: enable auto off			OFF: Disable auto off ON: Enable auto off	0	Select ion
B-10	Wait time of back-light auto off	Wait time of back-light auto off	min	1	1~9	3	Input
B-12	Button display style of modification and conversion	Button display style of modification and conversion			ICN: Icon TXT: Text	0	Select ion
B-13	Large Stitch pattern support	Large Stitch pattern support			OFF: OFF ON: ON	0	Select ion
B-14	Pitch setting of converging vector graphics	Pitch setting of converging vector graphics	x0.1mm	1	10~127	30	Input
B-16	Communication speed increase	Communication speed increase		1	0~1	0	Input
B-20	Preset time reminder	Preset time reminder		1	0~7	0	Input
B-22	Main interface pattern display function code	Main interface pattern display function code			YES: On NO: Do not show	NO	Select ion
B-23	SEW pattern export path	SEW pattern export path			0: Root directory 1: Borther/ISM/ISMDB0 0	1	Select ion

B-24	Home screen button display style	Home screen Key Display style Sets the key display style on the home screen			0: icon 1: Text	0	Select ion
B-25	Background color of the main screen	Background color of the main screen			0: Deep 1: Light	0	Select ion
B-26	Flash drive file preview	Flash drive file preview			0: Off 1: Open	0	Select ion

Pattern Settings

Code	Description	Details	Unit	Step	Range	Factory Default	Type
C-1	Algorithm of backtack in multisewing	Algorithm of backtack in multisewing			0: According to segment 1: Only start and end	0	Select ion
C-2	Insert second origin code after first feed line	Insert second origin code after first feed line			OFF: OFF ON-S: ON (switch sewing) ON-F: ON(continue feed)	1	Select ion
C-3	Shortcut keys for break point of curves	Shortcut keys for break point of curves			OFF:OFF ON: ON	1	Select ion
C-4	Restore sewing after input feed	set restore sewing style after input feed			0: Keep 1: Straight line	1	Select ion
C-5	Needle reduction after editing	Needle reduction after editing			OFF: No ON: Yes	0	Select ion
C-6	Reference point setting for modification	Reference point setting for modification			0: Home 1: 2HP	0	Select ion
C-7	Display Sew Point?	Display Sew Point?			0: No 1: Yes	1	Select ion
C-8	Method of pattern convert	Method of stitch index selection in multi-sew,offset-sew,backtack,zig zag or swap start/end			0: Stitch 1: Elements	0	Select ion

C-9	Scale unit	Scale unit			0: Percent 1: Size	0	Selecti on
C-10	Scale mode of multi-sewing	Scale mode of multi-sewing			0: Variable 1: Fixed	0	Selecti on
C-11	Size calculation method of zoom function	Size calculation method of zoom function			0: From home 1: Form start sew point	0	Selecti on
C-12	Return method after modify finishing	Return mode after modification (point and code)			0: Function selection 1: Continue to modify	0	Selecti on
C-13	Mode of multi-sewing offest-sewing convert and insert section	Mode of multi-sewing offest-sewing convert and insert section(whether impact position of fillowing elements)			0: Relative modification 1: Absolute modification	1	Selecti on
C-14	Whether or not to save the initial feed when setting pattern center	Pattern center setting in pattern scale or rotation			0: Reserve 1: Remove	1	Selecti on
C-15	Whether 2HP is rotated in rotatefunction	Whether 2HP is rotated in rotatefunction			0: No 1: Yes	0	Selecti on
C-16	Algorithm of parallel curve	Criterion of angle to form a cornerpoint:0:non e,180:all			A1: Algorithm 1 A2: Algorithm 2 A3: Algorithm 3	2	Selecti on
C-17	Criterion of angle to form a corner point	Criterion of angle to form a corner point		1	0~180	90	Input
C-18	Feed pitch setting	Feed pitch setting	x0.1m m	1	10~120	120	Input
C-20	Show scale of shape point	Show scale of shape point			OFF: OFF ON:ON	0	Selecti on
C-21	Shape outline display of pattern edit	Shape outline display of pattern edit			OFF: OFF ON:ON	1	Selecti on
C-22	Edit following action setting	Edit following action setting			OFF: Disable ON: Enable	0	Selecti on
C-23	Small stitch	Only for straight			OFF: OFF	0	Selecti

	Shape Fusion	lines, shape points within 1mm distance will merge the previous feature			ON:ON		on
C-26	Middle Presser foot height modification mode	Middle Presser foot height modification mode			0: Stitch 1: Segment	0	Selecti on
C-27	segment movement type	segment movement type			0: Simple 1: Complex	0	Selecti on
C-28	Import graphics data	Import graphics data			0: single(absolute and relative mode modification) 1: Multi	0	Selecti on
C-29	Point movement and segment movement change track	Point movement and segment movement change track			0: OFF 1:ON	0	Selecti on
C-30	Empty line combine after point move	Empty line combine after point move			0: No 1 : Yes	0	Selecti on
C-31	Rapid movement mode(Editing)	How to Move Two Points inediting and pattern modification			LINE: Line PAT: Pattern	1	Selecti on
C-32	Auto trimming for pattern edit	Auto trimming for pattern edit			OFF: OFF ON:ON	1	Selecti on
C-34	Whether 2HP position is scaled	Whether 2HP position is scaled			OFF: No ON: Yes	1	Selecti on
C-35	Reference point 2 setting method	Reference point 2 setting method			PRE: 预设固定值 FRE: Freely choose any point of the pattern	FRE	Selecti on
C-36	Whether the presser foot moves during trial sewing	Whether the presser foot moves during trial sewing			OFF:ON ON:Yes	ON	Selecti on
C-37	Continue pattern pause code position	Continue pattern pause code position			0: End of prev 1: Start of current seg.	0	Selecti on
C-39	Stitch creation	Stitch creation			0: Stitch priority	1	Selecti

	method	method			1: Equal division		on
C-40	Command editing display style	Command editing display style			0: Command key on the right 1: Command key on the left	0	Selecti on
C-41	Support input curve corner points	Support input curve corner points			0:No 1: Yes	1	Selecti on
C-43	The middle inverted seam method	The middle inverted seam method			0:Element 1: Dotted seams		Selecti on
C-47	Select the frame transfer mode	Select the frame transfer mode			0: Slow speed 1: Shift frame at uniform speed		Selecti on

Maintenance

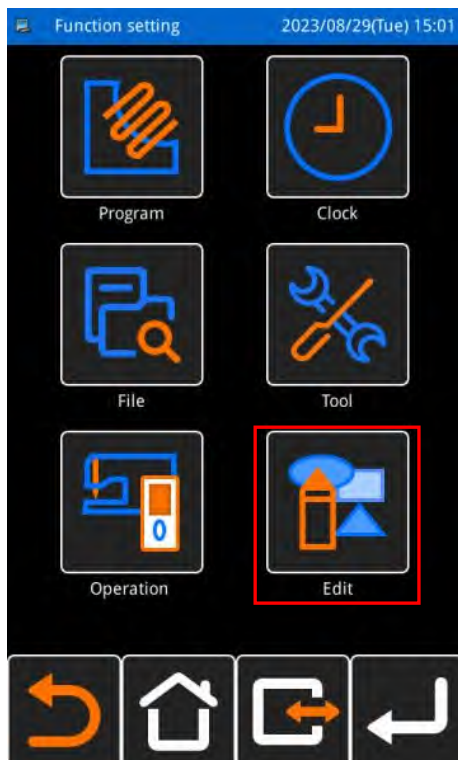
Code	Description	Details	Unit	Step	Range	Factory Default	Type
D-1	The remain value of replacing needle	The remain value of replacing needle	x1000 pins	1	0~9999	0	Input
D-2	The set value of replace needle	The set value of replace needle	x1000 pins	1	0~9999	0	Input
D-3	The remain value of clean time	The remain value of clean time	Hour	1	0~9999	0	Input
D-4	The set value of clean time	The set value of clean time	Hour	1	0~9999	0	Input
D-5	The remain value of replacing oil	The remain value of replacing oil	Hour	1	0~9999	0	Input
D-6	The set value of replacing oil	The set value of replacing oil	Hour	1	0~9999	0	Input

Counter



Code	Description	Details	Unit	Step	Range	Factory Default	Type
E-5	Sets counter clear method atpower supply on	Sets counter clear method atpower supply on			0: clear 1: reserved	1	Selecti on
E-8	The operation	The operation of			OFF: Stop sewing	0	Selecti

	of the sewing machine when the set value of the adder (production count) is reached	the sewing machine when the set value of the adder (production count) is reached			ON: Sewing operation can be continued		on
E-9	Operation of the sewing machine when the set value of the subtractor (lower thread count) is reached	Operation of the sewing machine when the set value of the subtractor (lower thread count) is reached			OFF: Stop sewing ON: Sewing operation can be continued	0	Selection
E-11	Shuttle change with counter	Shuttle change with counter			OFF: OFF ON: ON	0	Selection


2.7 Mitsubishi version




In Main interface, click Function Setting

 → Pattern-making button  to enter the pattern-making interface.

A. Whether to re-enter

If the entered data is to be replaced with a new one, press the button  (clear the last printing data and re-print).





If to continue to make a version of the entered data, press the button  (continue to the last print data).

B. Set the speed


Click the four speed buttons in the interface to set the sewing speed for editing pattern data:



C. Set Pitch

Use the number buttons  ~  and  ~  to input Pitch, the range is 0.1mm~12.7mm.


D. Graphical parameter modification

There are parameter buttons in the pattern-making, modification and conversion interface , these

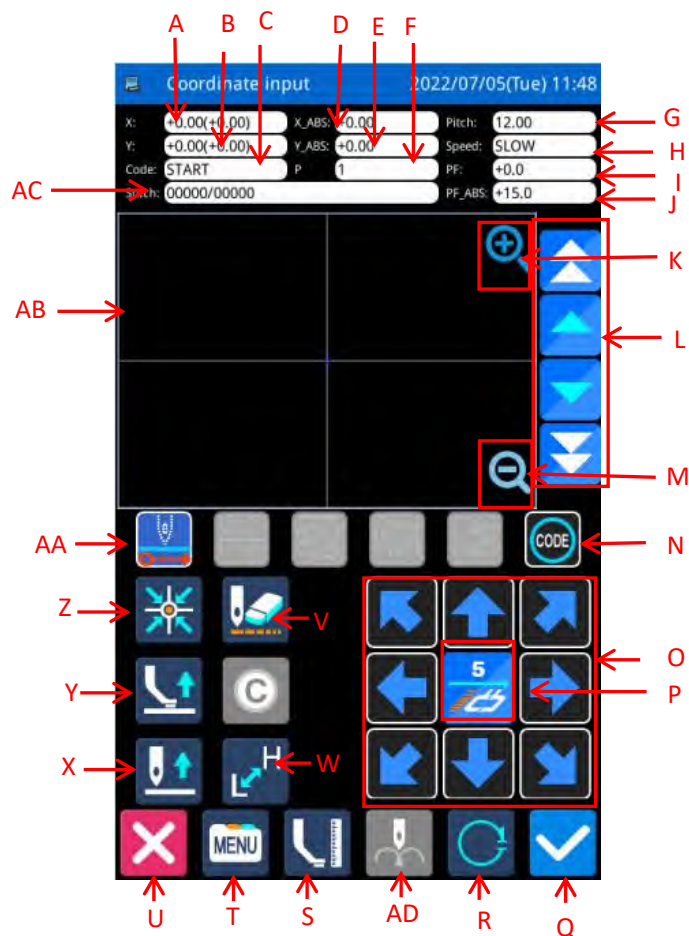
gather the relevant parameters, which is convenient for users to set.

E. Determine the input





After the above data setting is completed, press

the button  to enter the pattern making input interface.

Supplementary Instructions for Pattern Making Interface



No.	Function	Content
A	X relative coordinates	Displays the relative coordinate X value of the current movement (the difference between the crosshairs and the pattern position in parentheses)
B	Y relative coordinates	Displays the relative coordinate Y value of the current movement (the difference between the crosshairs and the pattern position in parentheses)
C	code	Displays the current input code.
D	X absolute coordinates	Displays the X value of the current coordinate.
E	Y absolute coordinates	Displays the Y value of the current coordinate.
F	Number of shape points	The number of shape points entered by the current editing process.
G	Pitch	Displays the pitch of the settings.
H	velocity	Note: The air feed pitch is displayed as 12.0mm
I	Relative value of the height of the medium press	Displays the speed of the current needle.
J	Absolute value of the height of the medium press	Displays the relative value of the current middle pin height
K	Magnification key	Displays the absolute value of the current mid-foot height

No.	Function	Content
L	Inch key (point move key)	  : On the pattern that has been generated, move forward/backward in an inch. (Point movement on already generated patterns)   : On the pattern that has been generated, move forward/backward in an inch. (Quick point movement on already generated patterns)
M	Zoom out key	Narrow down the pattern
N	The input code is modified	Code setting mode
O	D-pads	Move the frame in all directions.
P	Adjust the frame speed	The range is 1~3
Q	Determine the key	Confirm the current edit shape.
R	Close a section of the seam	Closure function.
S	Modify the item thickness	The thickness of the material can be adjusted for sewing
T	Directory key	Enter directory mode.
U	quit	Return to the previous screen.
V	Cancel the Last Data Entry key	Press this key to cancel the last determined input point and return to the previous input point.
W	Toggle sewing machine speed	Press this button to switch the sewing machine speed in turn: low speed, high speed, medium high speed, medium low speed.
X	Needle position setting key	Raise or lower the needle position
Y	Medium pressure foot rises	Adjust the medium pressure foot to rise
Z	Return to origin key	Press and execute the Return to Origin command.
AA	Enter the needle step	You can enter the needle step, but there is no transfer, and you can transfer it with another click
AB	Pattern screen display	Displays the current patterned pattern
AC	Number of needles	Displays the number of pins/total number of needles in the current needle position.
AD	Curve corner point	Use the curve function to move the frame, click the corner point key to generate a 90° right angle point

3 Appendix 1

3.1 List of Alarm Information

Error No.	Error Content	Solutions
E-010	Pause Switch not in normal position	Please release the Pause Switch and press the RESET button to clear the error.
E-011	Pause Switch pressed	Please press the RESET button to cancel the error, and press the direction button to move to the place where to continue sewing to continue the interrupted sewing.
E-025	Did not put down the Presser foot board	Please step on the Presser foot switch first and lower the Presser foot board.
E-050	The sewing machine head is raised and the Safe Switch is activated.	Turn off the power, confirm that the Safe Switch plug is inserted, and raise the handpiece to confirm that the Safe Switch is not pressed tightly.
E-081	Insufficient bottom line	After replacing the bottom line, press the OK button to restore
E-082	Laser offset out of range	Reset the laser offset value
E-086	Failed to write the driver program	Please restart the system and perform the upgrade again.
E-091	Unidentified template	Please relocate the template
E-097	The card reading module is abnormal	Power off to check whether the reader module is damaged or disconnected
E-099	Model does not match	The panel does not match the type of the control box, re-upgrade
E-111	Insufficient bottom line	Press the Confirm button to deactivate the alarm.
E-131	The spindle encoder is in poor contact.	Turn off the power and confirm the insertion of the spindle encoder plug
E-132	An abnormal rotation speed of the sewing machine main shaft was detected.	Turn off the power and confirm the insertion of the spindle encoder plug
E-133	Sewing machine spindle motor is running abnormally	Turn off the power, please confirm the insertion of the spindle encoder and spindle power cable plug
E-150	Abnormal heat or overload of the Sewing machine motor.	Turn off the power and turn the handwheel to confirm whether the sewing machine is locked.
E-152	The extension module is not connected	Shut down the system and check the cable connection and power supply between the expansion module and the system
E-153	The expansion module overflows	Close the system, check whether there is a short circuit of the external air valve, and remove the air valve one by one
E-200	The origin of the X-axis feed motor cannot be detected.	Turn off the power and confirm the insertion of the X-axis sensor plug.
E-201	The X-axis feed motor stopped abnormally.	Turn off the power, and check whether there is any abnormality in the X-axis feeding direction.
E-210	The origin of the Y-axis feed motor	Turn off the power and confirm the insertion of the Y-axis

	cannot be detected.	sensor plug.
E-211	The Y-axis feed motor stopped abnormally.	Turn off the power and check whether there is any abnormality in the Y-axis feeding direction.
E-212	X-axis overcurrent protection	Turn off the power and check whether there is any abnormality in the distribution direction of X axis.
E-213	Y-axis overcurrent protection	Turn off the power and check whether the Y-axis distribution direction is abnormal.
E-214	Wire cutting motor overcurrent protection	Turn off the power, and make sure that the direction of the wire cutting motor is abnormal.
E-215	X-axis motor blocked	Turn off the power and check whether there is any abnormality in the distribution direction of X axis.
E-216	Y-axis motor is blocked	Turn off the power and check whether the Y-axis distribution direction is abnormal.
E-217	The wire cutter motor is blocked	Turn off the power, and make sure that the direction of the wire cutting motor is abnormal.
E-218	The thread trimmer motor does not find the origin	Turn off the power and check whether the thread trimmer motor operates abnormally.
E-219	Y-axis UVW signal failure	Turn off the power and confirm the insertion of the Y-axis encoder plug.
E-220	X-axis shock failure	Restart, please check the X-axis motor parameters.
E-221	Y-axis shock failure	Restart, please check the Y-axis motor parameters.
E-222	X-axis overspeed fault	Power off. Make sure the X-axis encoder plug is plugged in.
E-223	Y-axis overspeed fault	Power off. Make sure the X-axis encoder plug is plugged in.
E-224	Wire cutting motor overspeed fault	Turn off the power and make sure the plug of the cutter motor encoder is plugged in.
E-225	The X-axis Z signal is faulty	Power off. Make sure the X-axis encoder plug is plugged in.
E-226	The Y-axis Z signal is faulty	Turn off the power and confirm the insertion of the Y-axis encoder plug.
E-300	The origin of the intermittent Presser foot motor cannot be detected.	Turn off the power, and check the insertion status of the Presser foot sensor plug and the Presser foot motor power cord plug.
E-301	The motor of the intermittent Presser foot stopped abnormally	Turn off the power, and check whether there is any abnormality in the vertical direction of the intermittent Presser foot.
E-410	Abnormal communication between the electric control and the panel is detected	Turn off the power and check the connection between the operation panel and the main control
E-411	A communication error with the engine board was detected.	Power off, please power on again, and check the configuration parameter Content.
E-475	Detected an abnormality in communication with the stepper drive	Turn off the power and confirm whether the stepper driver board is abnormal
E-476	Detected an abnormality in communication with the stepper	Power off, please power on again and check the configuration parameter Content

	drive	
E-477	Detected an abnormality in communication with the stepper drive	Power off, please power on again and check the configuration parameter Content
E-501	The sewing range of the sewing machine is exceeded during the movement	Please confirm the size of the sewing data.
E-600	Thread-Break Detection exception	Check whether the disconnection sensor and the sense cable are connected properly
E-700	The power supply voltage is abnormally high.	Turn off the power and confirm the input voltage.
E-701	The drive voltage of the sewing machine is overloaded.	Turn off the power, please confirm whether the power supply voltage is normal, equipped with a voltage stabilizer.
E-705	The power supply voltage drops abnormally.	Turn off the power and confirm the input voltage.
E-710	An abnormal current in the sewing machine spindle was detected.	Turn off the power and check whether there is any abnormality in the sewing machine.
E-711	An abnormal current of the X-axis feed motor was detected.	Turn off the power, and check whether there is any abnormality in the X-axis feeding direction.
E-712	An abnormal current of the Y-axis feed motor was detected.	Turn off the power and check whether there is any abnormality in the Y-axis feeding direction.
E-713	Abnormal current detected in Presser foot motor.	Turn off the power and check whether the presser foot is lifted abnormally.
E-730	External error input (AIRSW) detected.	Turn off the power and check the air pressure.
E-740	The cooling fan in the control box is not working.	Turn off the power, and check whether it is caught by lint, etc.
E-743	Auxiliary power failure	Turn off the power and check whether there is a short circuit in the external air valve or solenoid.
E-744	The driver voltage is too high	Turn off the power and confirm the input voltage.
E-745	The drive voltage is too low.	Turn off the power and confirm the input voltage.

3.2 List of Prompt Information

Information Code	Information Name	Sub-Information Content
M-001	Production counter reaches maximum value	Please press the OK button
M-002	Bottom line counter reaches maximum value	Please press the OK button.
M-003	Change is prohibited	Please set parameter No. 350
M-004	Pattern data does not exist	Please re-read or type out the input.
M-005	The setting value is too large	Please enter a value within the range.
M-006	Setting value is too small	Please enter a value within the range.
M-007	Please press the home button	
M-008	Storage parameter exception	Please press the OK button to restore the factory defaults.
M-009	No pattern in memory	Please press the OK button to load the factory pattern.
M-010	The number of memory patterns is full	Delete unused sewing data.
M-011	Whether to delete pattern data in memory	Press the OK button to perform the delete operation, and press the cancel button to exit the current operation.
M-012	Whether to overwrite the pattern data in the memory	Press the OK button to perform the overwrite operation, and press the cancel button to exit the current operation.
M-013	Pattern data cannot be deleted	The selected sewing data is in use!
M-014	Whether to format the memory	Press the OK button to perform the formatting operation, and press the cancel button to exit the current operation. After formatting, all Memory pattern data will be deleted!
M-015	Detected abnormal communication between electronic control and panel	Detect the connection between the operation panel and the main control
M-016	beyond the Sewing range	Please make sure the pattern data is within the Sewing range!
M-017	Failed to read letter embroidery font file	
M-018	The operating head does not match the control box type	Please check the model and software version
M-019	Incorrect pattern number entered	Please enter the correct pattern number.
M-020	Exceeded max pitch	
M-021	wrong password	please enter again.
M-022	hardware clock failure	If the hardware clock is found to be faulty, please contact the manufacturer for maintenance!
M-023	Stitch out of range	Please enter [Operation Settings]->[LCD Screen], select the parameter of 'Large Stitch Pattern Support' and set it to ON
M-024	Needle pitch input value is too small	Please enter a value within the range.
M-025	Needle pitch input value is	Please enter a value within the range.

	too large	
M-026	A second origin already exists	Only one second origin can be entered.
M-027	Feeding action, please press ENTER	If you press the cancel button, return to the main menu
M-028	Whether to copy the specified pattern data	
M-029	Whether to restore factory settings	OK button executes the operation, cancel button exits the operation
M-030	USB drive removed	The USB drive has been pulled out!
M-031	No data found in the USB drive	
M-032	Enter at least one letter	Letter embroidery printing requires at least one letter!
M-033	No alarm record	
M-034	Replace the needle	The needle replacement setting value has been reached, please replace the needle!
M-035	Change the oil	The oil change time set value has been reached, please change the oil!
M-036	cleaning machine	The time set value for cleaning the machine has arrived, please clean the machine!
M-037	different data formats	Please confirm the data format
M-038	Unable to generate curve	Please re-enter according to the precautions for curve input
M-039	The trimmer cannot be inserted at the current position	Please insert trimmer after sewing data
M-040	Cannot insert the same function code in the same position	
M-041	The current position cannot be inserted into the second origin	Please insert second origin after transfer
M-042	Entering points cannot generate arcs and circles	please enter again
M-043	Unable to generate overlapping seam data	Please add overlapping seam after closing the figure
M-044	Unable to join thread trimmer after down pause	
M-045	Unable to add next pause before line cutting	
M-046	Incorrect location selected	
M-047	Can't zoom	
M-048	Incorrect pattern data	
M-049	Generate arc data?	
M-050	Generate circle data?	

M-051	Generate curve data?	
M-052	Generate polygon data?	
M-053	Presser foot not put down	Please step on the pedal
M-054	Incorrect user ID entered	please enter again
M-055	Do not modify the system time	The installment password is set, and the system time cannot be modified
M-056	Failed to write password file	Panel clock error or password file expired
M-057	Failed to read password file	
M-058	Failed to clear all passwords	Password file cannot be deleted
M-059	Failed to clear password	After clearing the password, the file is written abnormally
M-060	Enter the pattern name	
M-061	Input can not be empty	Please enter password
M-062	The current password does not match	Please re-enter your current password
M-063	The new password does not match	Please re-enter the new password and confirm again
M-064	Are you sure to clear the alarm record?	Are you sure?
M-065	whether to delete the selected file	Are you sure?
M-066	Copy all graphics	Overwrite the original graphics?
M-067	Failed to copy file	Please check if the disk space is full!
M-068	Failed to copy file	Please check if the USB stick is unplugged!
M-069	fail to open the file	fail to open the file!
M-070	format mismatch	Format mismatch, discard current read!
M-071	Please create directory and file	Please create a bakParam directory under the U disk, name the backup file backup.param, and copy it to the bakParam directory!
M-072	file read and write error	File read and write error!
M-073	Please select an entry	Please check the entry to read and write!
M-074	file does not exist	The file corresponding to the current entry does not exist!
M-075	Movement amount not entered	Please enter the amount of movement!
M-076	Are you sure to perform the current operation?	Are you sure? Yes: Enter No: X
M-077	Are you sure to clear the accumulated operating time?	Are you sure? Yes: Enter No: X
M-078	Are you sure to clear the accumulated sewing pieces?	Are you sure? Yes: Enter No: X
M-079	Are you sure to clear the accumulated Power time?	Are you sure? Yes: Enter No: X
M-080	Are you sure to clear the accumulated sewing stitch?	Are you sure? Yes: Enter No: X
M-081	Upgrade entry not selected	Please select items to upgrade, at least one item must be

		selected
M-082	Some of the selected upgrade entries do not exist	Items without upgrade files will be unchecked after returning, if you want to upgrade the remaining items, please confirm again
M-083	update succeeded	The upgrade is successful, please restart the machine
M-084	Whether Format USB Data	Press the OK button to perform the formatting operation, and press the cancel button to exit the current operation.
		After formatting, all U disk files will be deleted!
M-085	success	The current operation has been successfully performed!
M-086	fail	The current operation failed!
M-087	Whether to overwrite the pattern with the same name in the U disk	Press the OK button to overwrite the file, and press the cancel button to exit the current operation.
M-088	Letter embroidery pattern saved successfully	Please enter the data reading interface and select the newly generated letter embroidery pattern
M-089	This pattern cannot be converted	Please confirm the pattern file
M-090	Whether to reset all settings	Are you sure?
M-091	Whether to restore selected items	Are you sure?
M-092	No item selected	Please select one or more parameters
M-093	parameter initialization	Clear all data in the storage area, please turn off the power and restore the position of the DIP switch
M-094	Cannot copy and overwrite the current pattern	The current pattern number exists in the copy queue, and the current pattern cannot be overwritten
M-095	Need to convert pattern format	The selected pattern is not a standard file format, please use it after conversion
M-096	This operation cannot be performed in the current pattern mode	Please restore parameter 400 or 401
M-097	Delete the original pattern?	Whether to delete the original pattern after format conversion
M-098	Shut down, bye!	
M-099	Large Pitch Pattern File Format	This pattern format is not supported by this system
M-100	Conversion pattern format error	Please confirm the pattern file
M-101	Converting pattern data is too long	
M-102	The converted pattern cannot be opened	Please confirm the pattern file
M-103	Conversion pattern precision error	The resolution in the pattern-making software is set to 0.1mm (Tools->Option Settings->Resolution)
M-104	Recovery parameters succeeded	The parameters are restored successfully, please restart the machine

M-105	Save the software version successfully	The software version has been successfully saved to the root directory of the U disk
M-106	set successfully	Need to restart the machine
M-107	Verification failed when upgrading the master program	
M-108	threading	
M-109	Whether to restore the saved custom parameters	OK button executes the operation, cancel button exits the operation
M-110	The current pattern is locked by the template	Please unlock template lock!
M-111	parameter load failed	Please contact the manufacturer for maintenance!
M-112	Insufficient bottom line	Please replace the lower thread and count again after pressing the OK button
M-113	Unable to generate multi-seam data	
M-114	Done with graphic duplication?	
M-115	memory allocation error	
M-116	Continued use will convert to point stitching	
M-117	The panel does not match the master password ID	Contact factory to unlock!
M-118	The panel has a password, but the master has no password	If you already know the password, please press the confirm button to synchronize encryption, otherwise contact the technician for guidance
M-119	The current master has a password and needs to be synchronized	The master has a password, but the panel has no password!
M-120	Need to replace the font, please power off and restart	Special languages will turn off the voice function
M-121	Missing language font	Please upgrade the required font file
M-122	number already taken	
M-123	Unable to generate stitches	
M-124	Internal data exception	
M-125	arc exists	Ellipse will be converted to point seam
M-126	Are you sure to clear production records?	Are you sure?
M-127	Check in successfully	
M-128	Failed to punch	
M-129	Condensation conversion succeeded	
M-130	Are you sure you want to clear the switch history?	Are you sure?

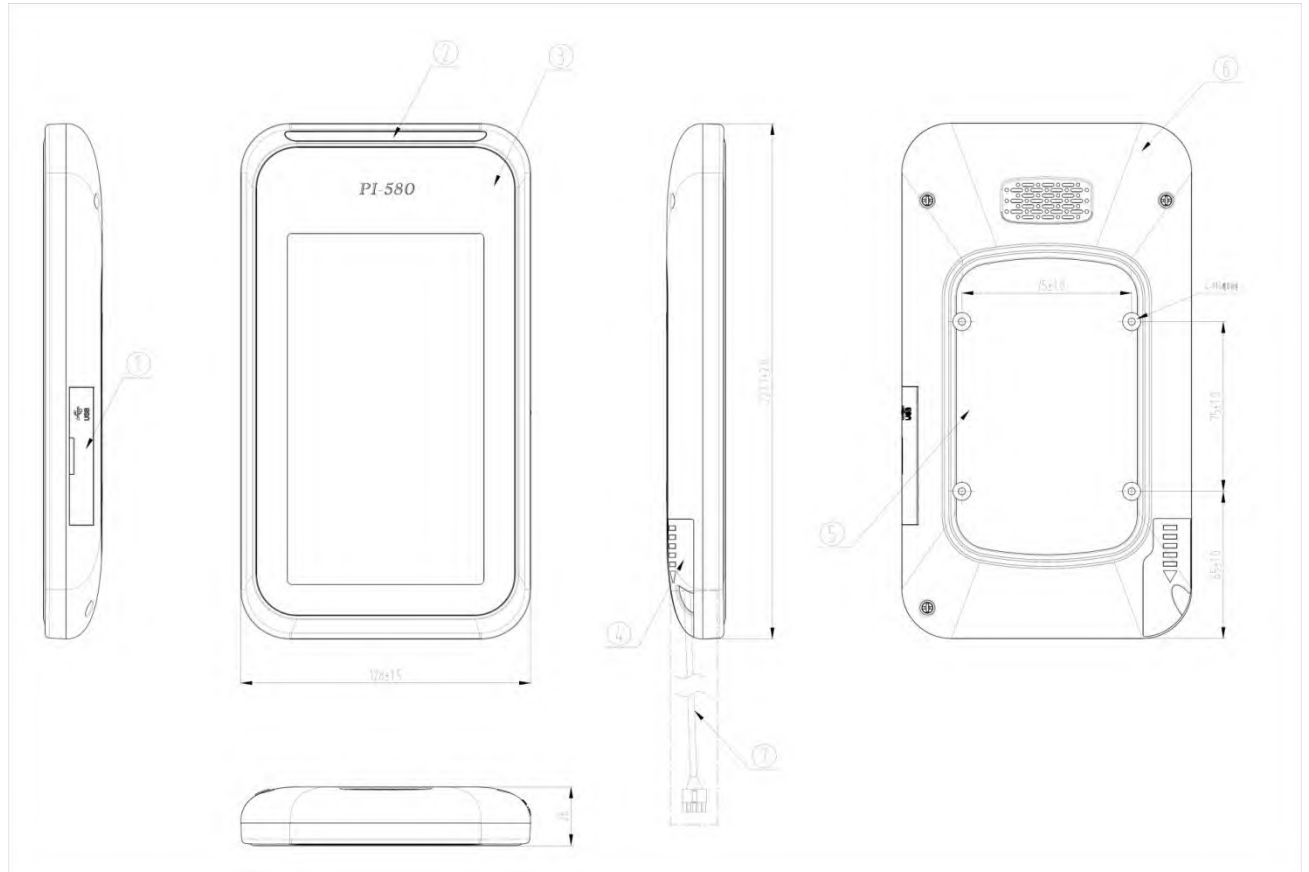
M-131	No switch record	
M-132	Failed to upgrade driver	
M-133	Request failed	
M-134	Password information saved successfully	
M-135	Upgrade file does not exist	The directory does not exist or there are no files in the directory
M-136	Are you sure to perform spindle calibration?	Are you sure?
M-137	Invalid group number	
M-138	Deny current operation	
M-139	Receive parameter is empty	
M-140	Parameters have not changed	
M-141	QR code display failed	
M-142	Condensation Stitch exceeds actual Stitch	
M-143	Unable to generate condensation data	
M-144	Can't enter point	Coincidence with the last input point position
M-145	Generate curve data?	
M-146	The start pin contains function code, please confirm whether to modify	OK button means to modify the function code, cancel button to exit and re-select
M-147	The panel is not encrypted, the master is encrypted	Please confirm whether to replace the new panel
M-148	Panel encryption, master not encrypted	OK button to synchronize encryption status
M-149	Remote staging settings already exist in the system	OK button to continue the operation, cancel button to exit the operation
M-150	Wireless module 1 connection failed	The system speed is reduced to the minimum, please contact the manufacturer
M-151	Do you want to update the pattern thumbnail now?	Thumbnails will also be generated after the pattern is used
M-152	The system has been set to offline mode	Can be detected after the networking function is turned on
M-153	join failed	
M-154	Can't convert	
M-155	Whether to delete the selected shape point	
M-156	Whether to modify shape point attributes	
M-157	The pattern does not exist, is it downloaded from the server?	

M-158	Are you sure?	
M-159	The requested pattern is not in standard NSP format	
M-160	The server updates the software, whether to perform the upgrade operation	Do you want to upgrade now?
M-161	Action not completed timeout	
M-162	Location query timed out	
M-163	Boot screen upgrade abnormally	
M-164	Please scan the code to start processing	
M-165	The width of the herringbone seam is too large, and a horizontal stitch needs to be inserted	
M-166	The panel is not connected to the master	DIP switch 5 is turned on
M-167	The pattern precision is higher than the system precision	Pattern data will lose precision
M-168	Whether to overwrite other patterns with the same name in the U disk	Press the OK button to overwrite the file, and press the cancel button to exit the current operation.
M-169	The pattern is generated, do you want to continue editing?	Yes: Enter, continue to set parameters or function codes; No: X, exit to save the pattern
M-170	Do you want to restore the stiffness of all pitches to their original values?	Are you sure? Yes: Enter No: X
M-171	Save the laser offset value?	Are you sure? Yes: Enter No: X
M-172	Do you want to save the origin offset value?	Are you sure? Yes: Enter No: X
M-173	There is editing data	Whether to end the printing operation
M-174	whether to cut the selected file	Are you sure?
M-175	file format error	
M-176	The current reference pattern is deleted or does not exist	Press the OK button to automatically replace with the default pattern
M-177	Base 2 cannot be in the same place as base 1?	
M-178	The end point must be after the start point	The current operation is terminated

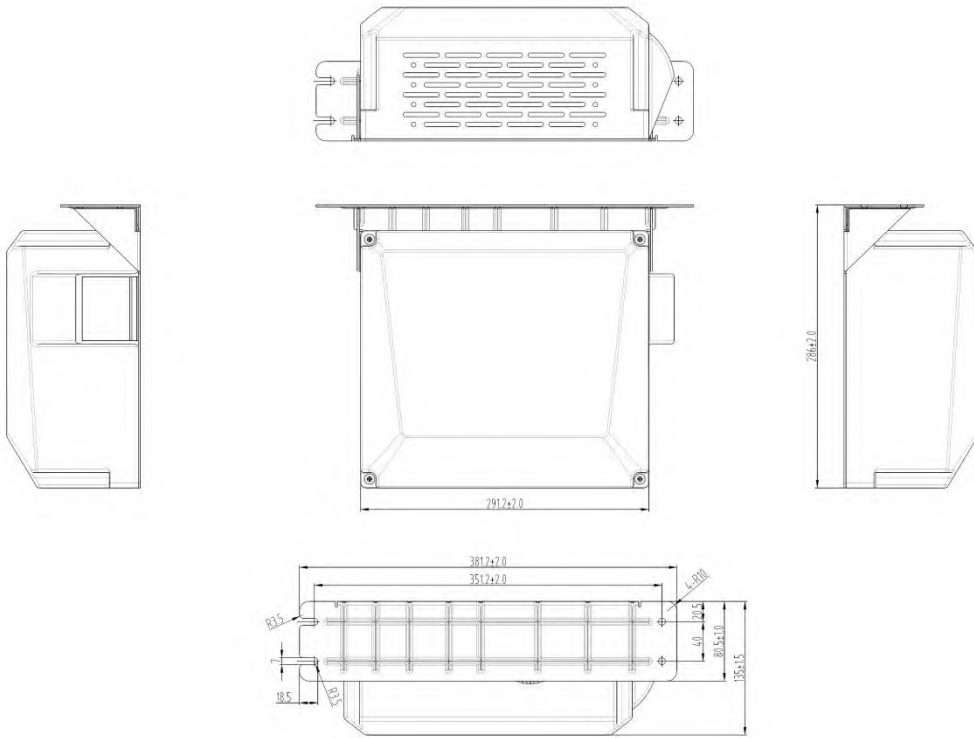
M-179	Enter the user program Settings please turn on parameter 400	The current operation is terminated
M-180	Step on the pedal to get ready to sew	
M-181	Network down	
M-182	Please save by executing the OK key first	
M-183	Unselected hotspot	
M-184	Preset time prompt	
M-185	The Wifi network is set successfully. Procedure	
M-186	SEW pattern with the same name, please select the execution method (only prompted once)	Ok: Duplicate patterns will be removed
M-187	Whether to cover the name SEW pattern	Return: Do not copy the file with the same name
M-188	The laser parameters are set incorrectly	Ok: Duplicate patterns will be removed

4 Appendix 2

4.1 Operating headers installation dimensions



4.2 Control box mounting dimensions



4.3 System block diagram

