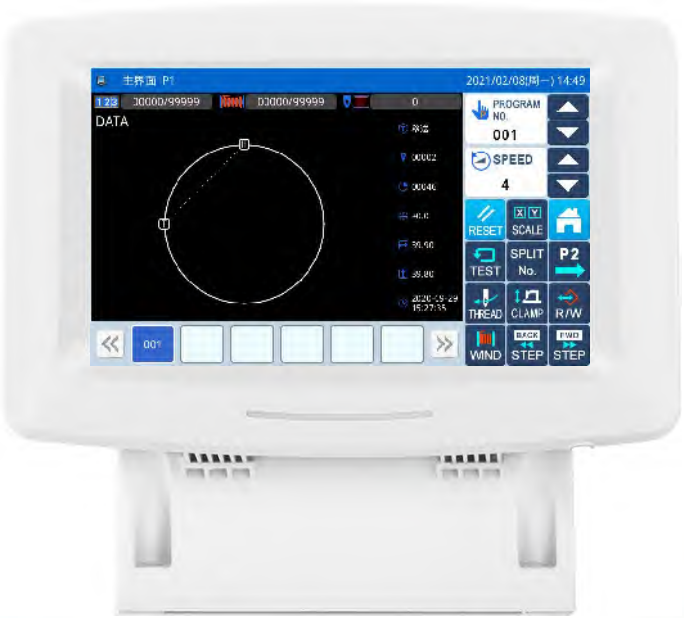
Owner's manual

Touch Panel HA

6T41X Pattern Sewing Machine



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V 2023-03

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 take away the plug from socket firstly, and then wait for at least 5 minutes before opening the control box. Touching the part with high voltage will cause the personal injury.
Caution	
Usage Environment	
	Try not to use this sewing machine near the sources of strong electronic disturbance like (high-frequency welding machine). The source of strong electronic disturbance will affect the normal operation of the sewing machine.
	The voltage fluctuation shall be within ±10% of the rated voltage. The large fluctuation of voltage will affect the normal operations of sewing machine, and the regulator will be needed in that circumstance
	Working temperature: 0℃～45℃. The operation of the sewing machine will be affected by environment with temperature beyond the above range.
	Relative Humidity: 35%～85 %(No dew inside the machine), or the operation of sewing machine will be affected.
	The supply of the compressed gas should be over the consumption of the sewing machine. The insufficient supply will be cause the abnormal operation of the machine.
	In case of thunder, lightning or storm, please turn off the power and pull plug out the socket. Because these will have the influence on the operation of sewing machine
Installation	
	Please ask the trained technicians to install the sewing machine.
	Don't connect machine to power supply until the installation is finished. Otherwise the action of 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 machine
	The entire cables shall be fixed with a distance at 25mm away from the moving component at least. By the way, don't excessively bend or tightly fixed the cable with nails or clamps, or it may cause the fire or

	electric shock.
	Please attach the safety cover at the 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, please remember to put on the glasses. Otherwise, the broken needle will cause the personal injury.
	At 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; 2. Replacement of needles; 3. The sewing machine is left unused or beyond supervision
	At working, don't touch or lean anything on the moving components, because both of the above behaviors will cause the personal injury or the damage to the sewing machine
	During working, if the mis-operation happens or the abnormal noise or smell is found at the sewing machine, 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 can the trained technicians perform the repair, maintenance and inspection of this sewing machine.
	For the repair, maintenance and inspection of the electrical component, please contact the professionals at the manufacturer of control system in time.
	At following circumstances, please cut off the power and pull off the plug so as to avoid the personal injury caused by the mis-operation of start switch: 1.Repair, adjustment and inspection ; 2. Replacement of the consumptive devices, like needle, knife and so on.
	Before checking, adjusting and repair any air-driven equipment, user needs cut off the source of gas and wait for the pressure indicator drop to "0".
	If you have to adjust the machine when the power is on, you can't be too careful at following the entire Safety Matters for Attention
	If the sewing machine damages due to the unauthorized modification, our company will not be responsible for it.

catalogue

1 General Information

1.1 General

This computerized control system for sewing machine features the following advantages: 1) Adoption of the world leading AC servo control technology on main shaft motor provides high torque, good efficiency, stable speed and low noise; 2) Diversified design of control panel can meet the special requirement of users on attachment; 3) System adopts German style structure, which offers easy installation and maintenance to users; 4) The system control software can be updated via the remote communication, which is easy for user to improve the performance of machine.

1.2 Function and Specification

For the functions and parameters of this computerized control AC servo system, please refer to table 1:

Table 1: Functions and Parameters

No.	Controller Model	6T41X
1	Sewing Range	X (left and right) direction Y (front and back) 450(mm) x 300(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: 0～8mm)
9	Middle Presser Foot Rise	20mm
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℃～45℃
22	Humidity Range	35%～85% (no condensation)
23	Power Supply Voltage	AC 220V ± 10%; 50/60Hz

Specification of Models S：Standard K：Knitting

※ Effective standard for product:QCYXDK0004—2022《Computerized Control System for Industrial Sewing Machine》.

1.3 Matters for Safe Using

- **Installation**
  - Control Box
    - Please install the control box according to the instruction
  - Attachments
    - If other attachments are needed, please turn off the power and pull off the power plug.
  - Power Cable
    - Do not press power cable with force or excessively twist power cable.
    - The power cables shall be fixed with a distance at 25mm away from the rotating component at least.
    - Before powering the control box, user shall carefully check the voltage of power supply and position of power input on control box. If the power transformer is used, user should also check it before powering the machine. At this moment, the power switch of sewing machine must be set as “Off”.
  - Grounding
    - In order to avoid the noise disturbance and shock caused by electrical leakage, user should ground the grounding cable.
  - Attachments
    - If the electrical attachments are needed, please connect them to the proper positions.
  - Disassemble
    - When removing the control box, user should turn off the power and pull off the power plug.
    - At pulling off the power plug, user should hold the plug and remove it, instead of pulling the power cable only.
    - The control box contains the dangerous high voltage power. For opening the control box, please turn off the power and take away the plug from socket firstly, and then wait for at least 5 minutes before opening the control box.

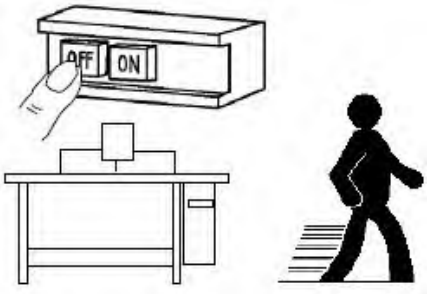
- **Maintenance, Inspection and Repair**
  - Only can the trained technicians perform the repair and maintenance of this machine.
  - When replacing the needles and shuttles, user has to turn off the power.
  - Please use the spare parts from the authorized manufacturers
- **Others**
  - Do not touch the rotating or moving part of the machine, especially the needle and belt, when the machine is working. User should also keep his/her hair away from those moving parts, so as to avoid the danger.
  - Do not drop the control device on the floor, nor insert ant stuff into the slot on the control box.
  - Do not run the machine without the cover shells
  - If this control device is damaged or unable to work normally, please ask the technicians to adjust or repair it. Do not run the machine when the problem is not solved
  - Please do not change or modify the control device without authorization
- **Abandonment**
  - Dispose it as common industrial trash.
- **Warning and Danger**
  - The mistake operation may cause danger. For the serious level, please refer to the figure at below:

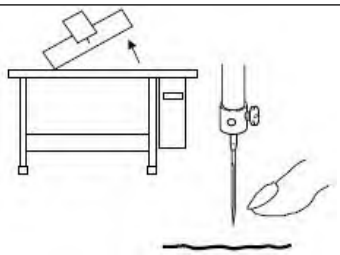
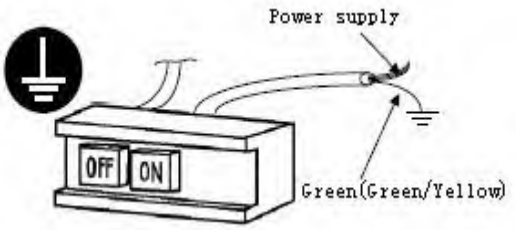
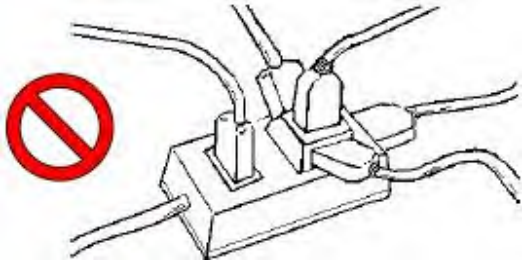
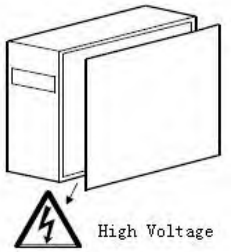
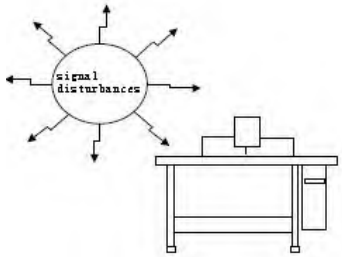
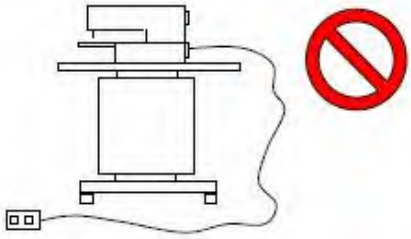
Warning	The wrong operation may cause serious injury or death
Caution	The wrong operation may cause personal injury or loss of property

  - The meaning of the figure are shown at below:。

1.4 The Preventive Measures in Use

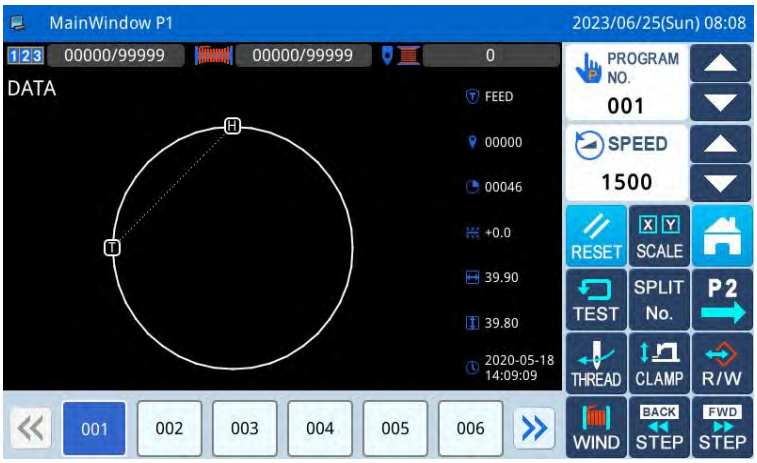
Warning

1. When you press the switch [ON], please do not step the pedal. 	2. When you leave the machine, please turn it off. 
3. If user needs to tilt the head or replace the needle or thread the upper thread, please turn off the power.	4. Ground well the grounding cable.

<table>
<tr><td>  </td><td> 
</td></tr>
<tr><td>5. Do not use the household terminal block to let machines to share one power supply.
  </td><td>6、For opening the control box, please turn off the power and pull out the plug from socket firstly, and then wait for at least 5 minutes before opening the control box.
 
</td></tr>
<tr><td colspan="2">7、After replacing the motor, user has to adjust the main motor installation angle according to this manual.</td></tr>
<tr><td>8、Please keep it away from the disturbance of high frequency machines.
 
</td><td>9、If user needs the external signal socket to connect the attachments, the connecting wire shall be as short as possible. The long cable may cause mistake operations. And the connection cable shall be the shielded.
  </td></tr>
<tr><td colspan="2">10、If the fuse is burnt, please solve the problem before replacing a new one with same capacity.</td></tr>
</table>

1.5 Standardization

The function keys use figures commonly recognized within the industry. Figures, as international language, are recognizable to users in every country.



1.6 Operation Method

The Mitsubishi type touching panel adopts the advanced touching operation technology, whose user-friendly interface and easy control bring the revolutionary changes to the daily usage of the users. For performing relevant operations, user can use his fingers or other objects to touch the screen.

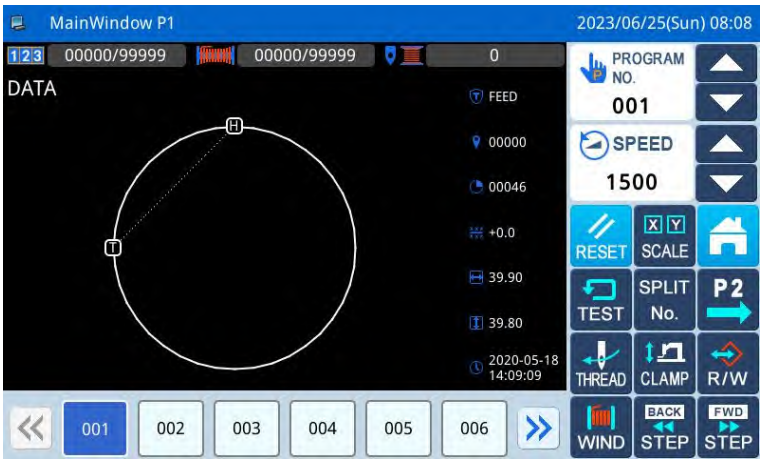
Don’t use sharp objects to touch the screen so as to avoid causing permanent damage to the touch panel.

2 Operation Instructions

2.1 Basic Operation

1、Turn on Power Switch

After user turns on the power, the main interface P1 will be displayed.



2、Pattern for Sewing

Display the selected pattern in the current interface. If user wants to change the pattern, he should refer to section [2.5 Load Pattern].

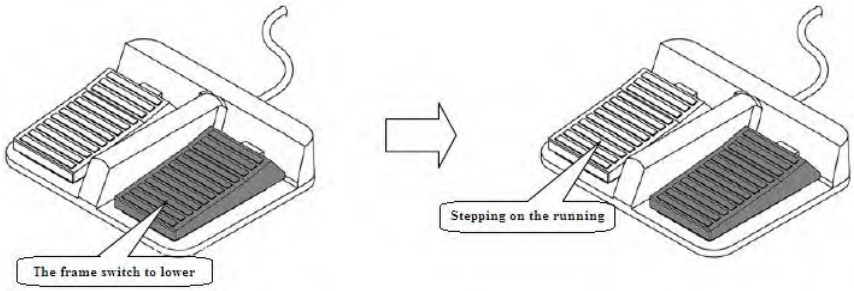
3、Start Sewing

① Before the actual sewing, user need confirm the settings of the sewing conditions again, especiall y the setting of the speed (Range: 0~9).

② The speed of sewing machine is determined by the speed value and stitch interval. The speed value will determine the max speed of sewing machine, while the stitch interval will limit the speed of sewing machine.

[Note]: Do not change the speed value during the sewing, except the condition of pause, otherwise it may cause influence on the thread-withdrawing condition.

③ Put the sewing material to the appointed position, step the frame switch (black one) to lower the frame and step the running switch (grey one) to start the actual sewing. Once the sewing starts, user will not need to continue stepping on the running switch. When the sewing machine finishes the work, the frame will go up automatically.



4、Pause

If user wants to stop the machine during the sewing, please press the emergency stop button on the head

(Please refer to the following figure for details). After user presses that key, the sewing machine will stop at the upper position (default setting) and enter the pause status. For releasing the pause status, please press that emergency stop button again. Then user can continue to perform the following operation:

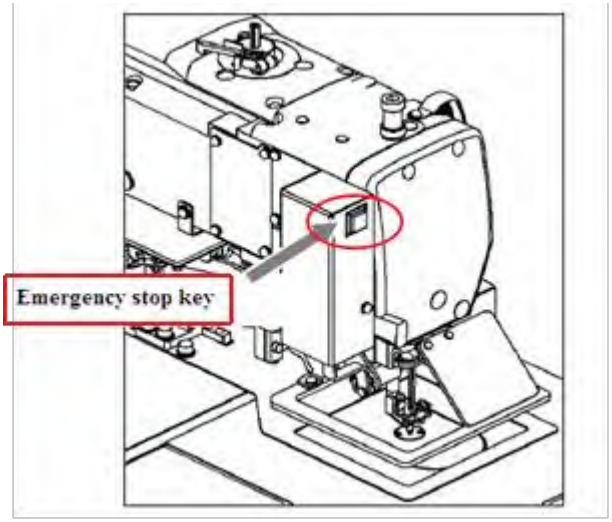
① Step on the running switch to continue the sewing;

② Press Forward Moving/ Backward Moving to change the sewing start position;

③ Step on the frame switch to lift frame;

④ Change the speed value of sewing machine; and/or

⑤ Move the intermediate presser.



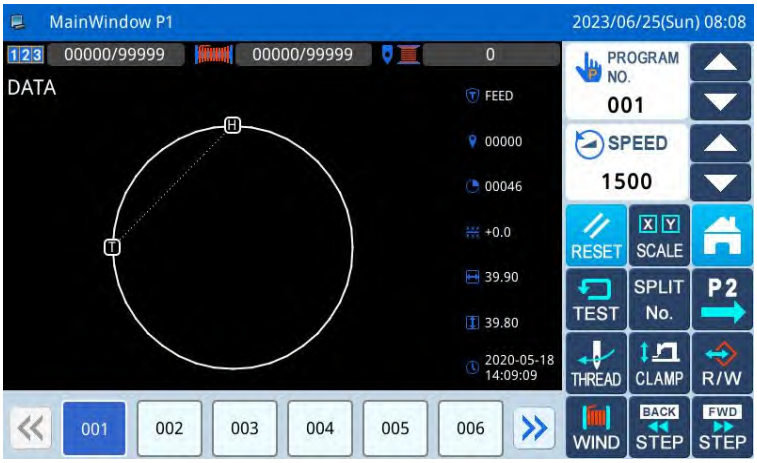
5、Method for Mending the Sewing

User can use the pause function to perform the mending sewing. If user presses emergency stop key in case of thread-breakage, the needle will stop at the upper position. Press backward moving key to move the frame to the position that is two or three stitches before the thread-breakage point, finish threading and step the running switch to continue the sewing.

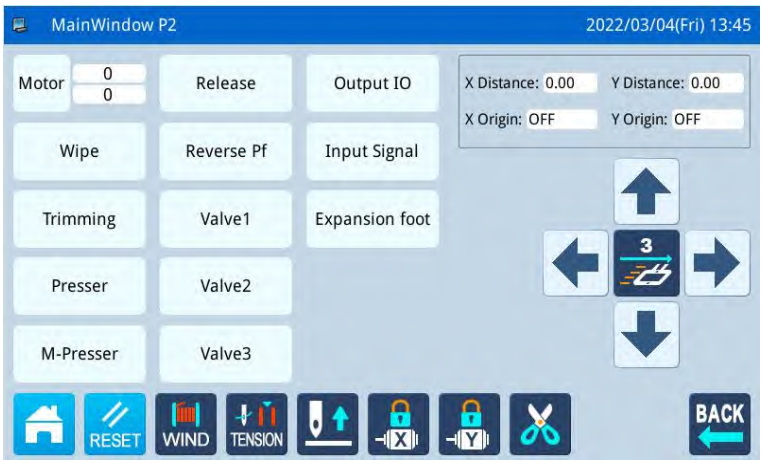
 Note: never use your foot to step on the running switch when threading. It is very dangerous to run the sewing machine when threading, so be sure to remove your foot from the running switch when threading.

2.2 Instructions on Interface Display Status

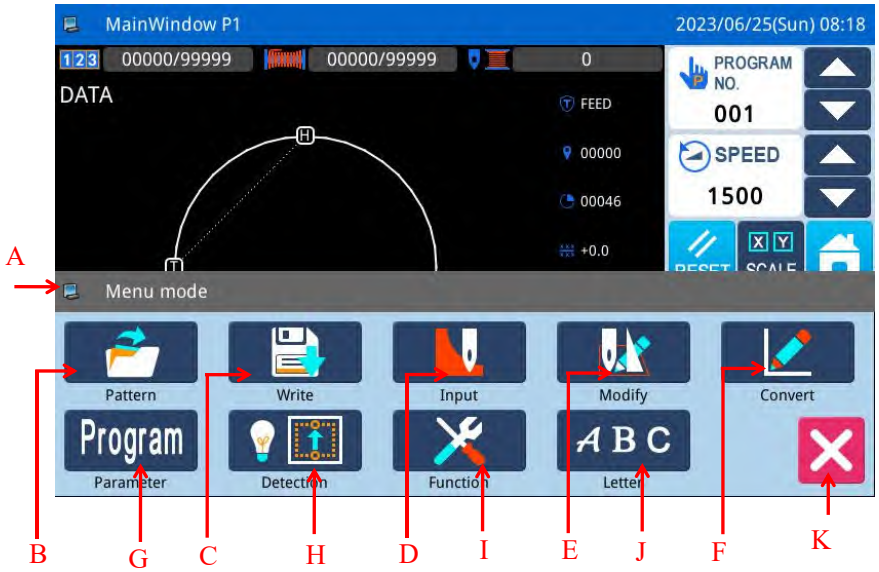
2.2.1 Interface 1 (Main Interface P1: Standard Display Status)



2.2.2 Interface 2 (Display Status after Users Press NEXT in Main Interface P1)



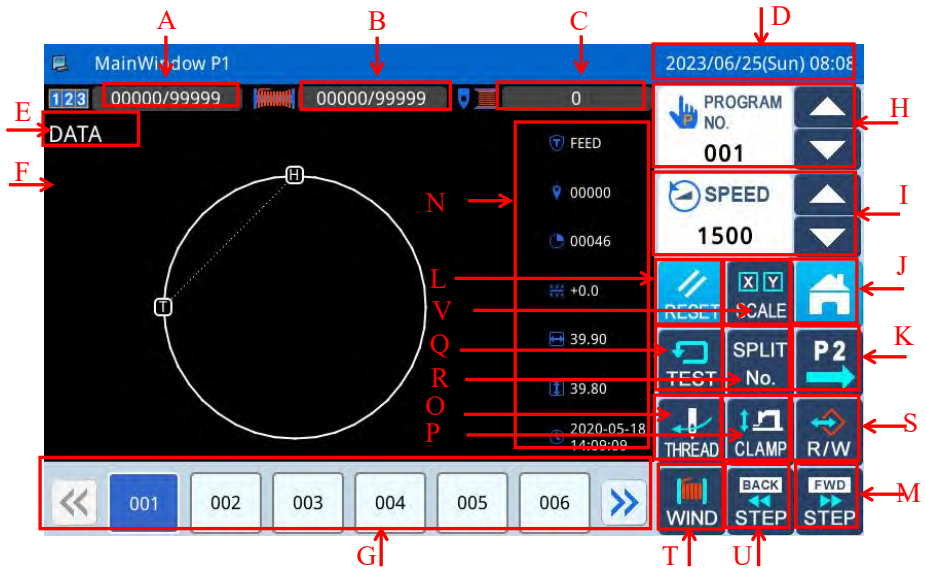
2.2.3 Interface 3 (Catalogue Mode in Main Interface P1)



Functions：

No.	Function	Content
A	MENU Function Interface Title	The displayed content is the interface title of the MENU. When user press the button, the displayed content in the title bar will become the functional description of the corresponding key.
B	Pattern management (adding, deleting, checking and saving graphic data)	After entering the interface, execute the corresponding functions to search, sort, delete, save, read and other related operations for patterns.
C	Save Pattern (Save Pattern Data)	Save the pattern to memory or U disk
D	Edit Pattern (Pattern Design Mode)	Edit the pattern
E	Modify Pattern (Modification Mode)	Modify the pattern
F	Data Transformation (File Transformation Mode)	Transform the data
G	Operation Setting	Set the operation parameters
H	Test Mode	Test the external devices, LCD screen and so on.
I	Function Setting	Perform the function operations
J	Letter Sewing Edition	Perform letter sewing edition。 **[Note]: User can close letter sewing edition function via Parameter “Special” -> “Enable Letter Sewing”. The figure will disappear when it is deactivated.**
K	Quit	Quit the current interface, and return to the upper interface.

2.3 Instructions on Main Interface P1

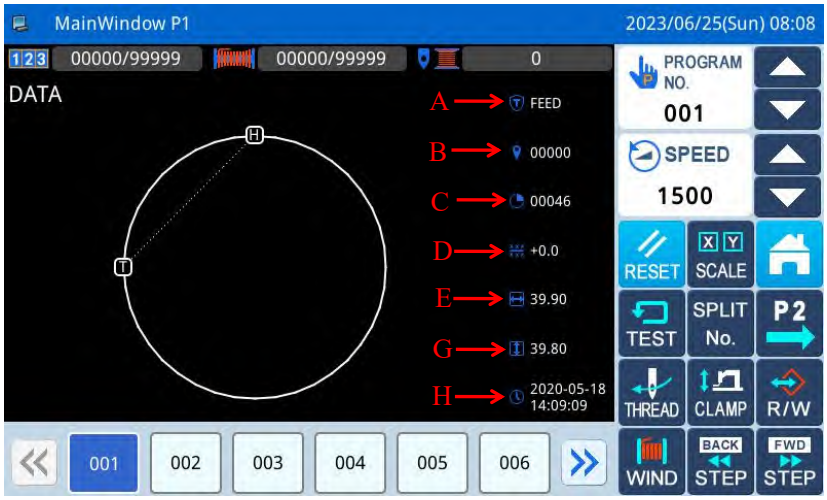


Functions:

No.	Functions	Content
A	Up-counter	Display the current value/set value of the Up-counter .
B	Down- counter	Display the current value/set value of the Down- counter .
C	The robbin counter's alarms number of stitches	Perform data setup operations
D	Date/Clock	Show time
E	Pattern Name	Display the name of current pattern
F	Pattern Shape	Display the shape of the current pattern **[Note]: is the position of origin.**
G	Pattern Number Hot Key	Display the recently used pattern numbers, at most 40 numbers can be saved. Pressing the pattern number will activate that pattern for sewing. **[Note]: In combined pattern sewing mode, the displayed content is the sub-pattern numbers and their number.**
H	Pattern Selection Function	Pattern No. selection method
I	Speed Adjustment Area	Adjust and display the sewing speed of the current pattern
J	MENU	Display the catalogue (refer to [2.2.3 Interface 2])
K	Enter Main Interface P2	Press it to enter Main Interface P2.
L	Reset	Reset
M	Forward key	Press this key,X-Y (frame) will move forward on the pattern
N	Display the data	Displays the current pattern data
O	Copy pattern key	Press this button to enter, you can choose the pattern you need
P	Threading key	Press this key to thread
Q	Intermittent presser foot setting	Adjust the intermittent presser foot height
R	Trial sewing key	Trial sewing operation
S	Read-write memory pattern	Set M-Presser foot height

No.	Functions	Content
T	Wire winding key	You can set whether to wire winding
U	Forward key	Move forward moves the sewings needle forward
V	Convert / zoom key	Press this key to enter and select the pattern you need

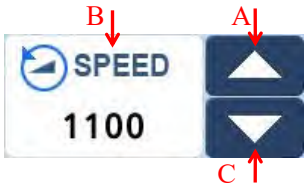
2.3.1 Pattern Stitch Number Display



Functions:

No.	Descriptions
A	Display the current frame position and sewing data type. (Sewing "SEW", Feed "FEED", Sub-origin "2HP", Upper Stop "USTP", Down Stop "DSTP", Thread-trimming "TRIM", Feed Speed "FEDS", Restart "ASRT", Board Heavy "HEVI", Fabric Thick "ATUM", Jump Sewing "BAT", Function 1 "FUN1"~Function 7 "FUN7", Reverse Presser Feet "REPF", End "END")
B	Display the stitch number at current position
C	Display the total stitch number of the current pattern (Including Feed, Thread-trimming, End, Code, etc.)
D	The distance that X/Y has traveled
E	Size of Pattern in X Direction
F	Size of Pattern in Y Direction
G	The time when the pattern was created

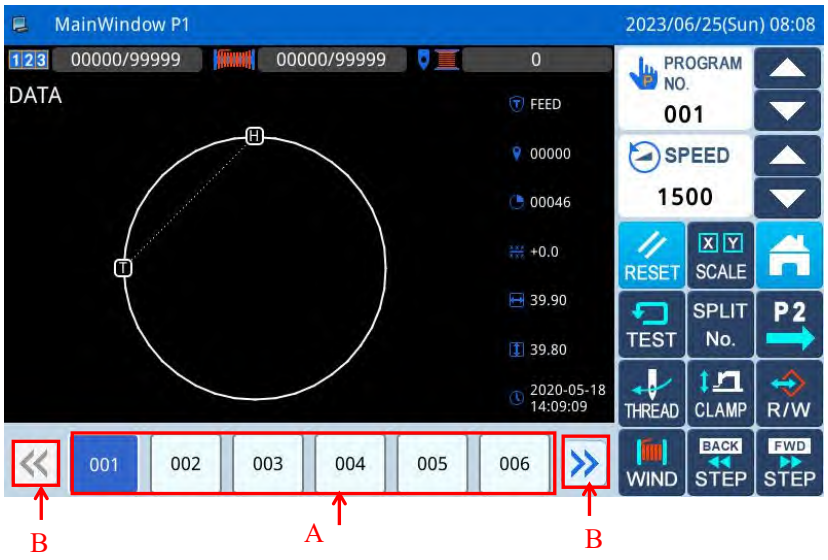
2.3.2 Speed Adjustment



Functions：

No.	Description
A	Increase the speed
B	Current sewing speed（200~2700） Display as speed value, if click this icon, you can jump to the standard parameter setting interface -- shortcut operation
C	Reduce the speed

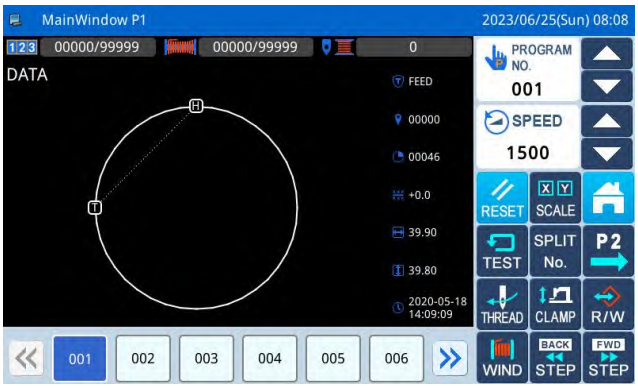
2.3.3 Operation of Pattern Number Hot key



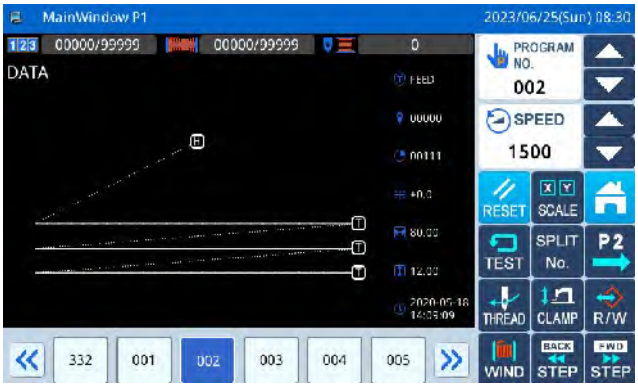
Functions：

No.	Description
A	Pattern number hot key (Current pattern: Displayed in white figure on blue background), select other number to shift the pattern.
B	Pattern number display page turn key

Example：



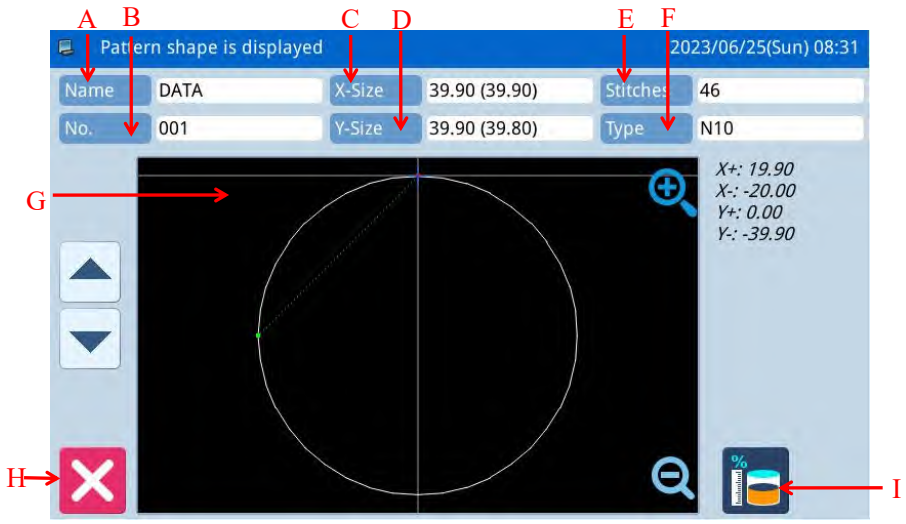
As shown in the figure, the shortcut key list in this example contains 2 pattern numbers. The current pattern number is 001. If we select pattern No. 002, the current pattern will be shifted to pattern No.002



As shown in the figure,This example selects the number 002 pattern, the current pattern will be shifted to pattern No.002

2.3.4 Pattern Display

In the Main interface P1, click the pattern display area to enter the pattern preview interface



Functions：

No.	Description
A	Pattern Name
B	Pattern Number
C	Size of Pattern in X Direction

D	Size of Pattern in Y Direction
E	Display Total Stitch Number of Pattern (Including Feed, Trimming, End, Code and so on).
F	Displays the current pattern type
G	Pattern Display.
H	Quit current interface and return to the previous interface.
I	Free space in memory display

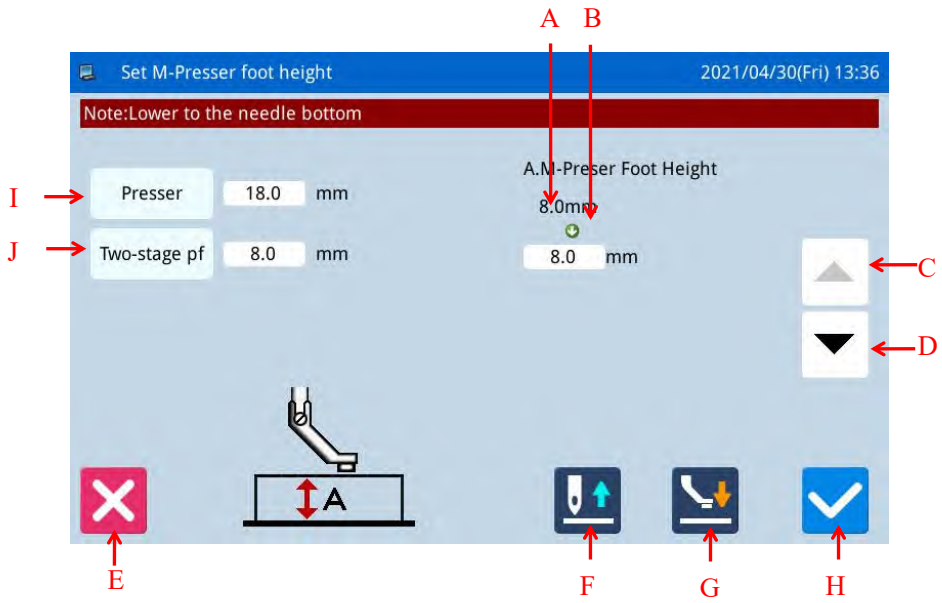
2.3.5 Sewing Fabric Thickness Setting

The lowest position of the intermediate presser is changeable. If the lowest position of intermediate presser in the default setting is lower than the thickness of the used fabric, user can use this function to change it.

[Note]: If users enter this interface when the intermediate presser is at down position, the system will hint "Lift Intermediate Presser".

[Note]: After entering the interface for setting the fabric thickness: only when the intermediate presser goes down, can user set this parameter.

[Note]: The range of this parameter is 0.0~8.0mm。



Functions：

No.	Description
A	Current Height of Intermediate Presser
B	Target Height of Intermediate Presser
C	Increase Height The intermediate presser goes up by 0.1mm at each pressing
D	Decrease Height The intermediate presser goes down by 0.1mm at each pressing
E	Quit the current interface and return to the previous interface.
F	Move needle vertically.  : Needle down  : Needle up

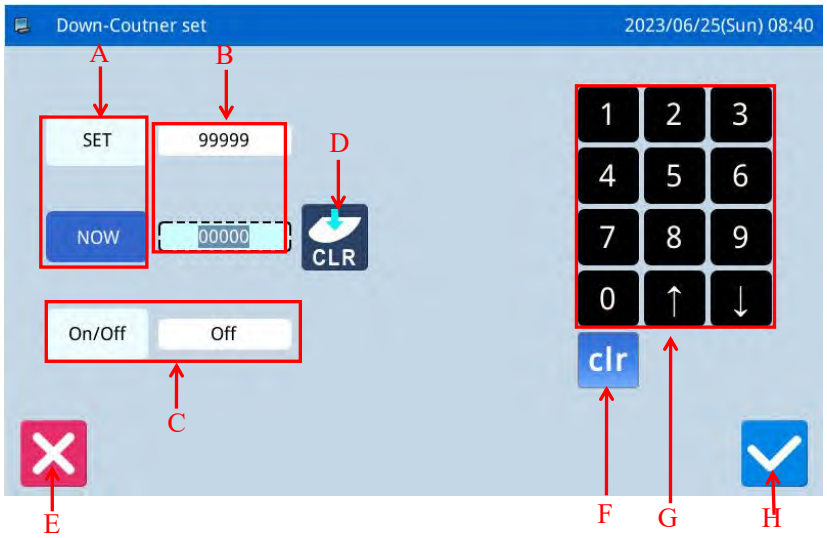
G	Press it to move the intermediate presser in the arrow direction  : Intermediate presser up  : Intermediate presser down
H	Save and Quit
I	Height setting of presser foot
G	Two - stage presser foot setting

2.3.6 Add counter setup

Push down 

in P1 to enter the setting interface of adding counter.

[Note] Counting mode of add/subtract counter is determined by the "counter" parameter in operation setting mode (refer to parameter description in [2.8.6 parameter setting table]).

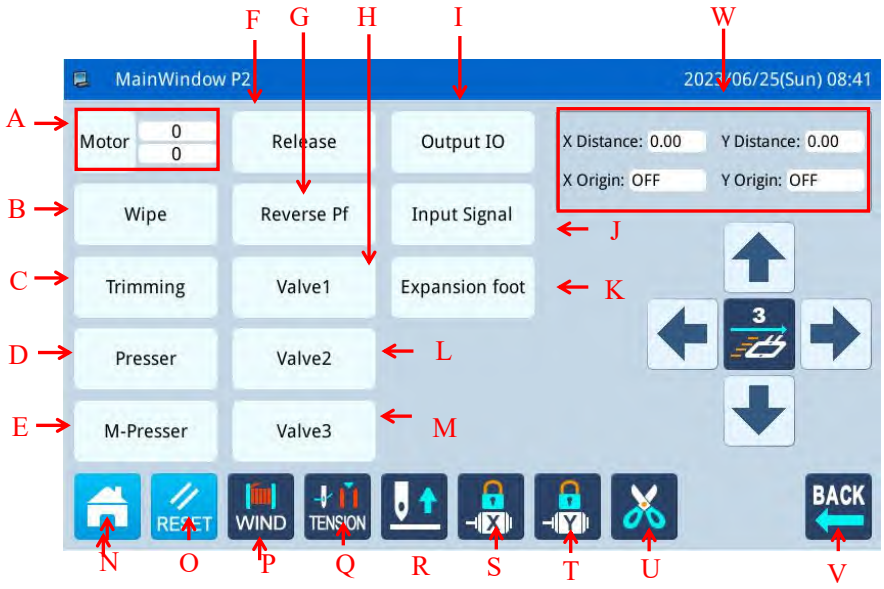


Functions:

No.	Content
A	Shift the input between the set value and the current value (The button in shadow is the selected one).
B	Display the set value and current value (User can input the value in the dotted frame)
C	Up Counter Switch
D	Clear current value.
E	Quit counter setting mode and return to previous interface.
F	Clear the value inputted currently
G	Number keyboard, used to input set value and current value
H	Confirm the setting

[Note] The subtraction counter setting operation is the same as the addition counter operation.

2.4 Main Interface P2



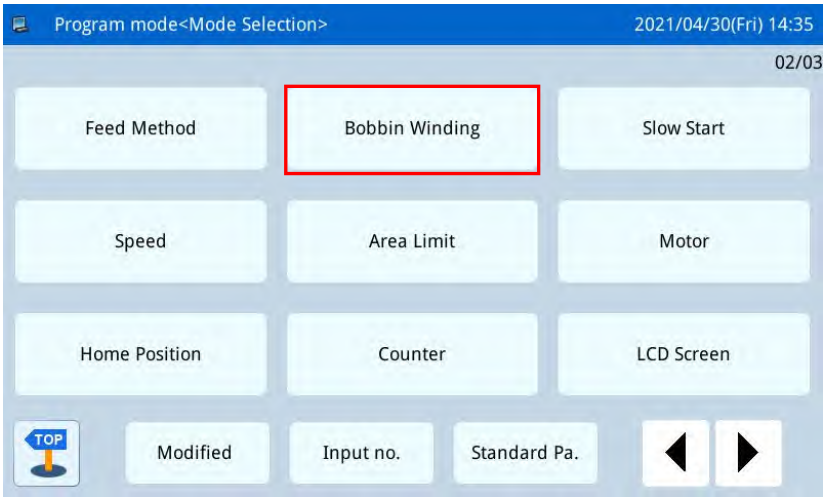
Functions：

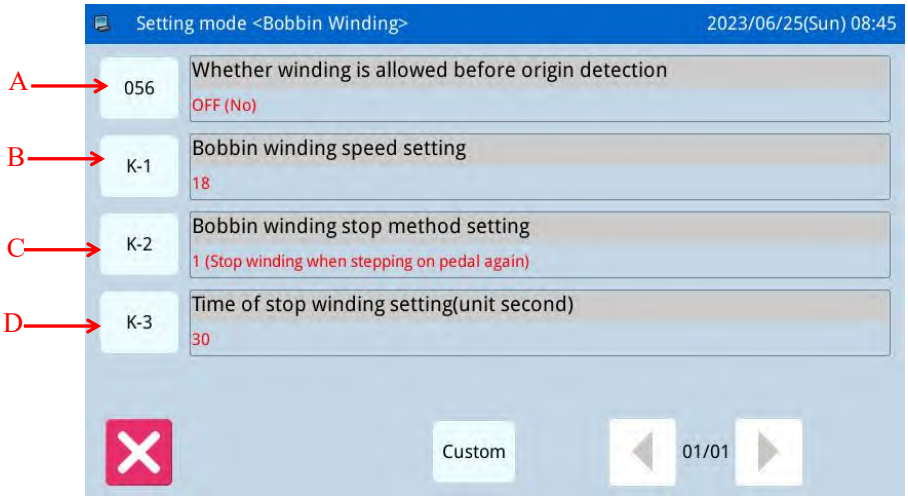
No.	Functions	Content
A	Main motor Angle setting	Set the Angle of main motor. The following number represents the Angle of the current angle.
B	wiper	Thread wiping output detection.
C	Trimming	Thread Trimming output detection.
D	Presser	Presser foot output detection.
E	Middle-presser foot	M-presser foot output detection.
F	Release	Thread release output detection.
G	Reverse Presser	Reverse Presser foot output detection
H	Auxiliary valve 1	Auxiliary valve 1 output detection
I	IO configuration	IO configuration parameters
J	Input signal	Input signal test
K	Reverse Pressers foot	Reverse presser output detection
L	Auxiliary valve 2	Auxiliary valve 2
M	Auxiliary valve 3	Auxiliary valve 3
N	MENU key	Display the catalogue
O	Reset button	The sewing needle goes back to its original point
P	Winding pattern	Can be set whether winding
Q	Thread Looser current	Set the current of Thread loosening device when threading
R	Needle Positin Setup	 : The needle down  : The needle up
S	X lock shaft	X axis lock /release
T	Y lock shaft	Y axis lock /release
U	Trimming	Thread Trimming output detection.
V	Return key	Press it to return to the main interface 1
W	Coordinate values	Displays X/Y coordinate values

2.4.1 Winding Mode

For winding, user has to activate this interface . Step the frame switch to lower the frame and then step the running switch to run the sewing machine at the set speed. But the X & Y axis will not move. Step on the pedal again and the machine will stop in the up position.

[Note]: The winding action is determined by the parameter “Winding” set in the Operation Setting Mode. (Please refer to [2.8.6 Parameter List])

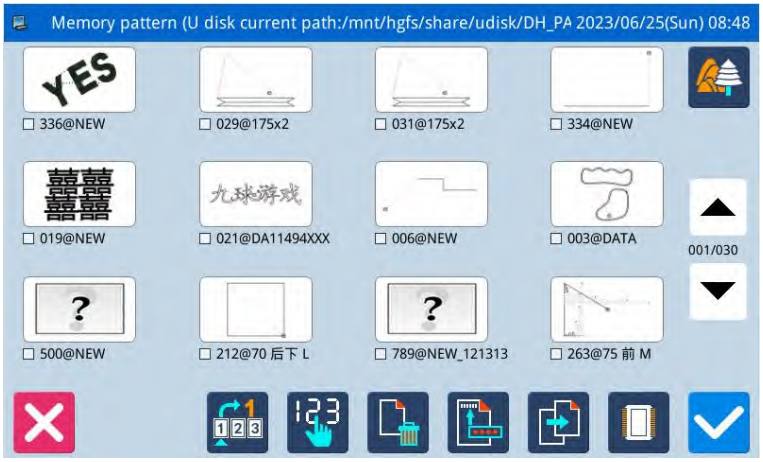




Functions：

No.	Description
A	Whether winding is allowed before origin detection
B	Actual winding speed setting. **[Note] Decided by the parameter "winding core" -> "winding speed setting".**
C	Winding stop mode setting. **[Note] Decided by the parameter "winding core" -> "winding stop-mode setting".**
D	Timed stop winding time setting. **[Note] Decided by the parameter "winding core" -> "timing stop winding time setting".**

2.5 Load Pattern



Functions：

No.	Functions	Content
A	Pattern preview list	Display the list of the saved pattern (Both number and name will be displayed). **[Note 1]: If user selects pattern in VDT format, system will ask user to transform the pattern format.** **[Note 2]: If the stitch number of the selected pattern is over range or the data is damaged, the system will hint that the pattern is unable to be selected.**
B	Pattern No List	Display the list of the saved pattern number.
C	Return to Main Interface	Return to main interface directly
D	Find patterns	Find patterns
E	Sequencing	Sequence the patterns according to their modification time or number.
F	Delete Pattern	Delete the selected pattern. **[Note]: The currently sewing pattern cannot be deleted.**
G	The save button	You can save the specified pattern
H	Access key	Select a pattern from memory or USB drive as the current sewing pattern.

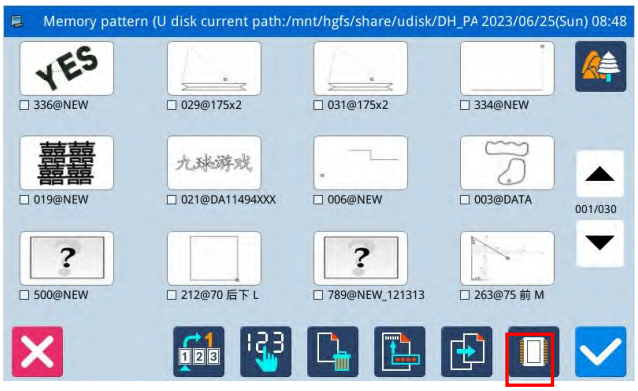
I	Select Memory/ U Disk	Load pattern from memory or U disk Shift between U Disk and Memory
J	Enter	Confirm the operation. After the operation, the sewing pattern will turn to the newly selected pattern.
K	Page down	Page down to look up interface
L	Page	Display current page number/ total page number
M	Page up	to look up interface
N	Pattern Display	Can preview patterns

2.5.1 Operation Instructions:

1、Open the Interface to Load Pattern

In main interface P1 (or P2), press  to activate the catalogue mode, and then press  .

[Note]: If the moving frame is not at the origin, the system will be unable to load pattern. Therefore, please perform the operation for returning to origin first.



2、Select the Object for Loading (Memory/ U Disk)

The default setting in this interface is the Memory Load Mode. You can press  to shift to U Disk Load Mode, which is shown at below.

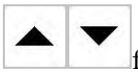
[Note]: If user performs the above operation without inserting the U disk, the system will display "U Disk Is Pulled Out".

3、Select and Confirm Pattern Number

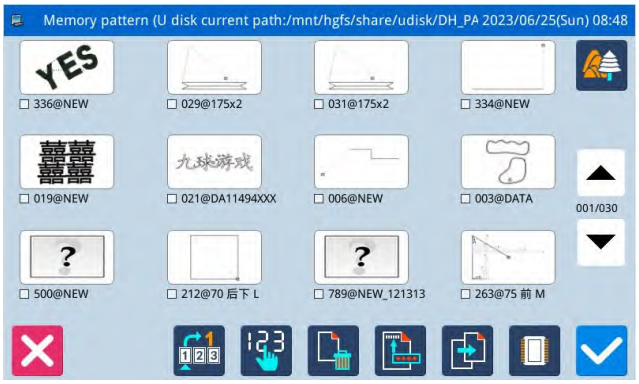
Select the pattern number for sewing and then press  . After the selection, the system will return to the main interface directly.

[Note]: If the pattern with the same number exists in the memory when user loads pattern from U disk, the system will display “Replace Pattern in Memory?”. At this moment, user need follow the given instructions.

4、Other Operations

If there are many patterns, user can use  for page turning and press  to view the pattern list more directly. If user knows the pattern number, he can use  to load the pattern directly.

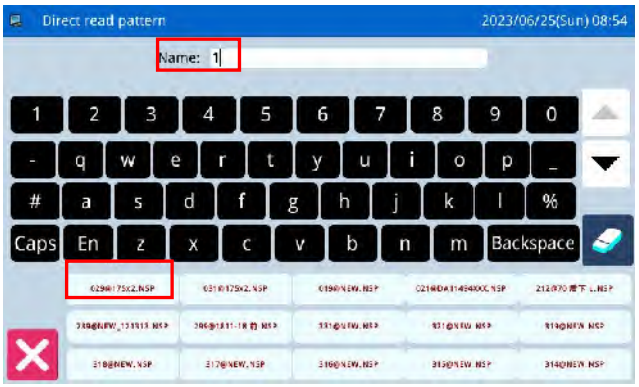
2.5.2 Direct Load Mode



1、Select Direct Load Mode

Press  in pattern loading interface to enter the Direct Load Mode.

[Note]: To load pattern by directly inputting the pattern number is limited to the memory load mode.



2、Input the First Number

(E.g. Load pattern No.01)

① Input “1”.

② The patterns saved in the memory whose first number is 1 will be displayed on the bottom keyboard as below:

③ Press  to clear the inputted number and re-input them.

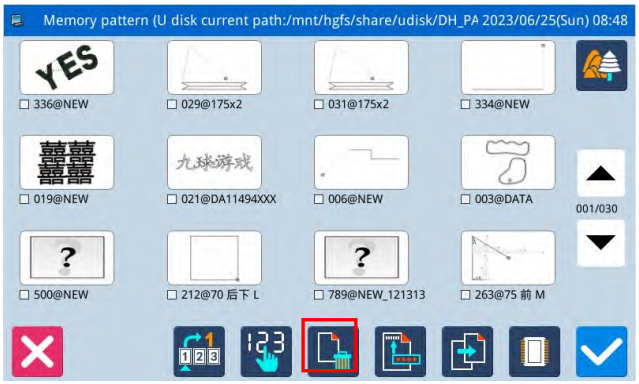
④ At this moment, press 

to activate the pattern and then the system will return to the main interface and display the selected pattern.

3、Switch English to Chinese

⑤ pattern search, you can input Chinese, switch to the Chinese input method mode to enter the search pattern.

2.5.3 Delete Pattern

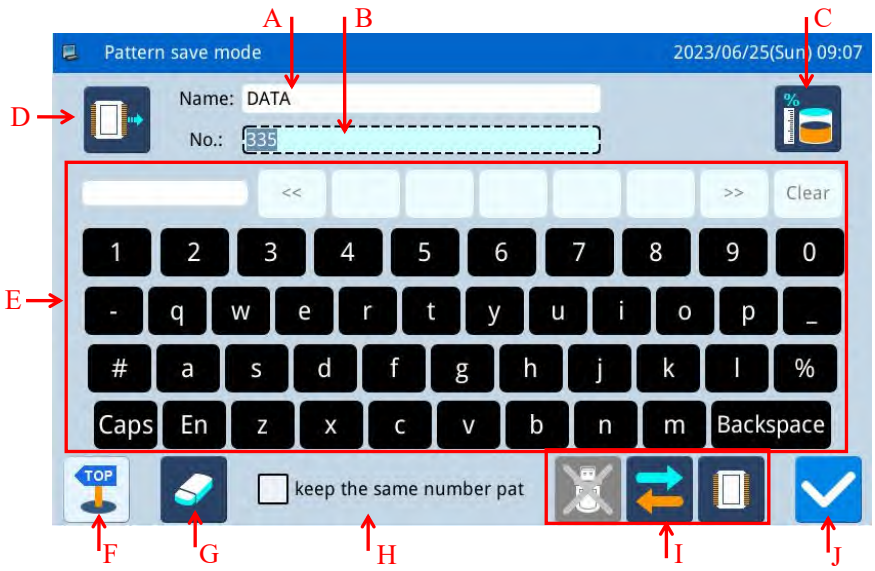


User can press  to delete a pattern. At this moment, the system will display “Delete Pattern from Memory?” (If the system is at U Disk Load Mode, the system will display “Delete the Selected File?”.). User need follow the given instructions, but the pattern being sewn cannot be deleted.

2.5.4 Supported Data Format

At present, the supported formats by the system are: NSP format, B format, BA format, VDT format, EMB format, DST format, DSB format, DSZ format,SEW format.

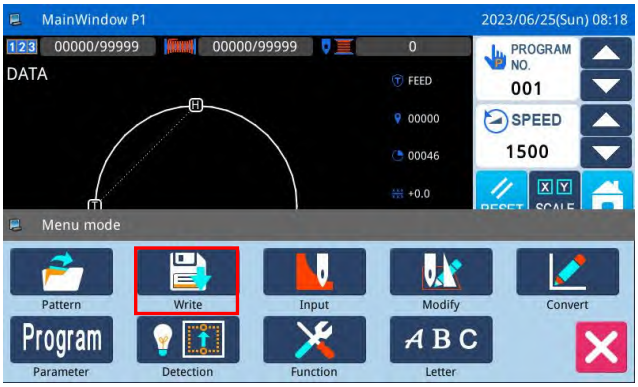
2.6 Save Pattern



Function：

No.	Functions	Content
A	Input Pattern Name	Display the pattern name
B	Input Pattern Number	Display the pattern number
C	Memory surplus function	Look at the amount of memory left
D	Display storage location	: The storage location is memory : The storage location is a usb flash drive
E	Keyboard	Input name or number
F	Return key	Return to the previous screen
G	Clear All Characters	Press it to clear all the inputted characters
H	Keep Pattern with Same Number	keep the same number pat:Choose to keep the same number pattern, save the same pattern, pattern number is different keep the same number pat: not to keep the pattern with the same number
I	Select Memory/ U Disk	Select read memory or U disk pattern, toggle to select U disk or memory
J	Identify key	Save the current Settings and exit to the previous screen

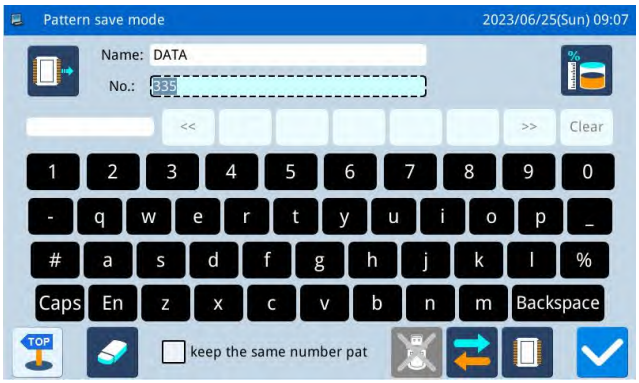
Operation Instructions：



1、Enter the pattern save interface

In main interface P1 (or P2), press  to activate the catalogue mode, and then press  .

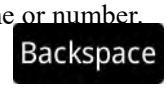
[Note]: If the moving frame is not at the origin, the system will be unable to save pattern. Therefore, please perform the operation for returning to origin first.



2、Set Name and Number

The default setting in this interface is the Memory Save Mode (you can see  at the upper left of the screen). You can press  to shift to U Disk Save Mode.

Press  or  to input the name or number.

Pressing  is to delete the first character at the left of the cursor, while pressing  is to clear all the characters.

If user need shift between capital and small letters, please press  .

[Note]: User can decide the number for a pattern before saving; the filename of a pattern consists of "Pattern Name" + "@Pattern Number" + "Format Type.nsp".

3、Save Pattern

After the input, press  to return to the main interface directly

[Note]: If the memory contains the pattern with the number same to that of the inputted one, the system will display "Replace Pattern in Memory?" Press  to cancel the replacement; press  to perform the replacement.

2.7 Figure play version

Under the main interface P1 interface, click the menu key → pattern typesetting key Input to enter the pattern typesetting interface.

（1） Whether to re-enter

If you want to replace the entered data with a new one, press CLR (clear the last copy, reprint).

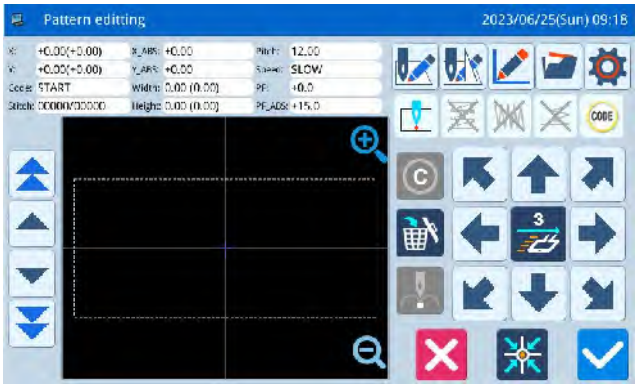
If you want to continue with the data you have entered, press C&R (continue with the last version).

（2） Set Speed

Click four speed buttons in the interface to select different speeds: HIGH | MD1 | MD2 | SLOW

（3） Set the pitch

Through the 0 ~ 9 digital key and ↑ ~ ↓ key, you can enter the pitch, ranging from 0.1 mm to 12.7 mm.



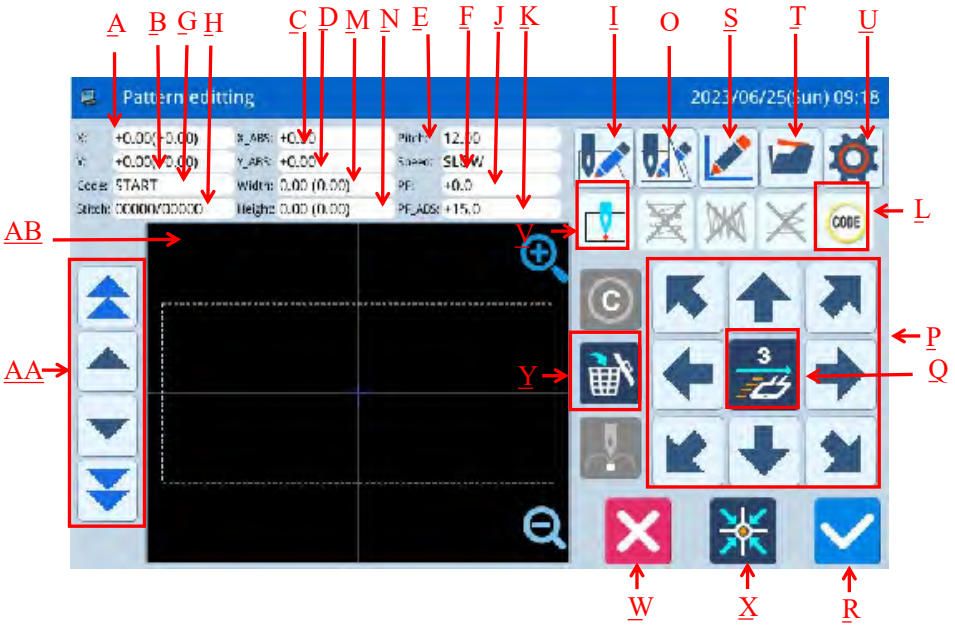
（4） Graphical parameter modification

There are parameter keys in the interface for printing, modifying, and converting, and the related parameters are concentrated to facilitate user settings.

（5） Determine input

After the above data setting is completed, press the key to enter the cursor input interface.

Supplementary Instructions



No.	function	content
A	X relative coordinates	Displays the relative coordinate X value of the current move. （In parentheses is the difference between the position of the cross cursor and the pattern）
B	Y relative coordinates	Displays the relative coordinate Y value of the current move. （In parentheses is the difference between the position of the cross cursor and the pattern）
C	X absolute coordinates	Displays the X value of the current coordinates.
D	Y absolute coordinates	Displays the Y value of the current coordinates.
E	Stitch length	Displays the set stitching distance. **[Note] Air feeding needle distance is 12.0mm**
F	Speed	Displays the current needle speed.
G	Code	Displays the current input code.
H	Needle count	Display the number of pins/total number of pins in the current machine needle position.
I	Shape plate	Use different shapes/elements to set the plate, such as curves, straight lines, circles, etc
J	Relative value of intermediate presser height	Displays the current intermediate presser height relative value
K	Absolute value of intermediate presser height	Displays the current intermediate presser height absolute value
L	Typesetting	Various typing functions.
M	Width	The absolute x-direction width of the current display frame interface pattern
N	Height	The absolute height of the current display frame interface pattern Y.
O	Graphical modification	Enter the graphical modification interface to modify the pattern data

No.	function	content
P	Direction key	Move the frame in all directions.
Q	Table move speed set	The range is 1~3
R	Enter	Confirm the current edit shape.
S	Graphic conversion	Enter the graphical conversion interface to convert pattern elements
T	File	Enter the pattern selection interface, select the pattern import plate display box
U	Set	Set pattern parameters such as needle distance, air return, etc
V	Current shape information:	This button is displayed according to the function change of the selected shape plate. The interface currently displays the sub-origin function
W	Back:	Exits the board mode and returns to the main screen
X	Return to origin	Press and then execute the return to origin command.
Y	Delete:	Delete edit pattern data from the current interface
AA	Inching Movement(Click Move button)	 : make inching movement forward/backward on generated pattern.  :make fast inching movement forward/backward on generated pattern.
AB	Pattern screen display	Display the current printing pattern

2.8 Operation Setting

It is to set each parameter. For the description of each parameter, please refer to [2.8.6 Parameter List].

2.8.1 Setting Method

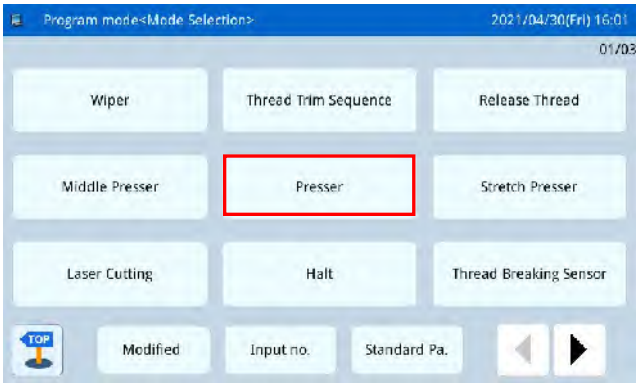
1、Enter Operation Setting:

In main interface P1 (or P2), press  to activate the catalogue mode, and then press 

.

2、Interfaces at Setting Mode

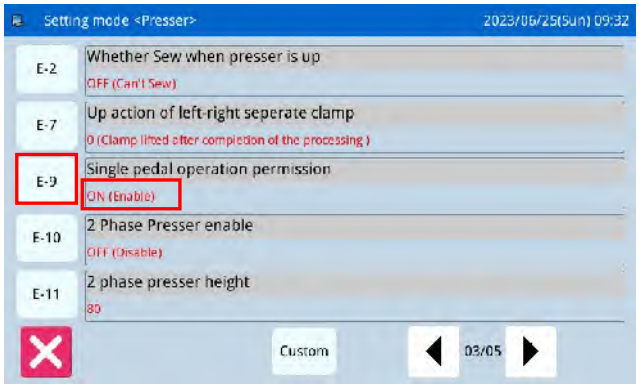
After entering the operation setting interface,There are many parameters can be chose , user can use  to turn the pages for selecting parameters.



3、Example ：

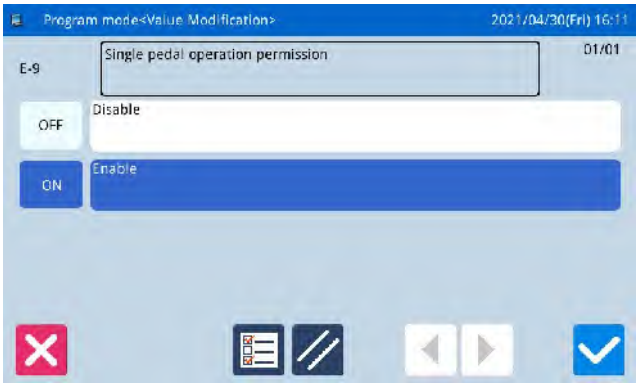
① Mode Selection

Select the parameter for setting to activate the “Internal Parameter Setting Interface”. Here, we press “Presser foot”



② Internal Parameter Setting Interface

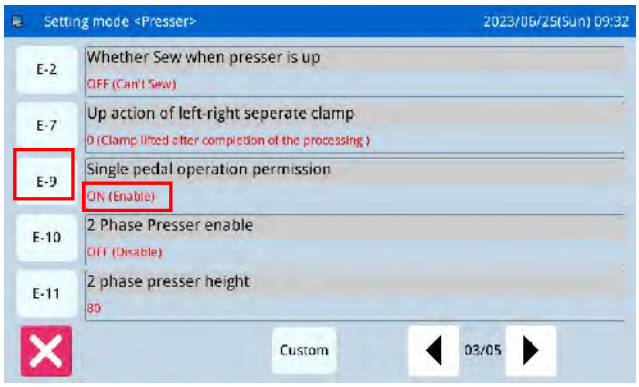
Select the parameter for setting to activate the “interface for changing the set value”. (We press “E-9” here.)



③ Change Set Value of Parameter

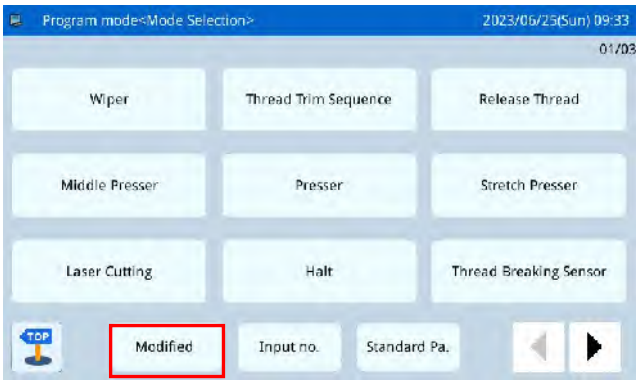
Press parameter to change the set value (here, we press “ON”). Then, press  to confirm it.

[Note]: Pressing  is to display the descriptions of that parameter and its value.



④ Check the Changed Parameter Set Value

Return to the “Internal Parameter Setting Interface”, where user can check the set value after change. Press  to quit.



⑤ Return to Mode Selection Interface

Return to “Mode Selection” interface. Because the set value is changed, the button “Modified” is displayed.

For returning to main interface P1 (or P2), please press  .

For checking the modified content, please press the “Modified” key.

⑥View the modified parameters

a)Enter password input mode

In the "Mode Selection" screen, press the "Modified Settings" button.,After the password is entered correctly, the modified parameter setting mode will be entered.(See [2.8.3 Parameter Mode Encryption Instructions] for more information on password setting.)

b) Enter Modified Parameter Setting Mode

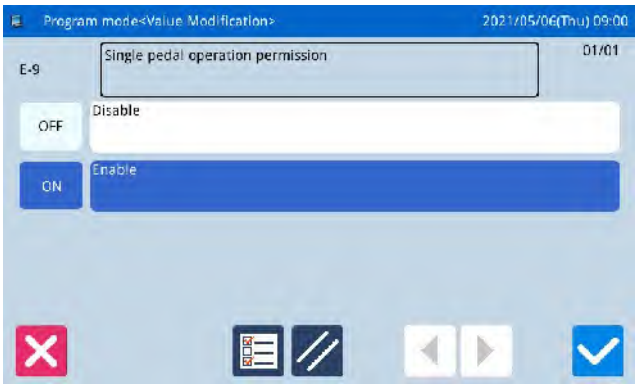
In this interface, the modified content of the parameter will be displayed. User can modify it again in this interface (Here, press “E-9”).

If user wants to restore the modified parameters, he should press the button with the name of that parameter (Here, he can press “Pedal Operation Method”) and then click “Restore”. After that user only needs to follow the instruction of the system.

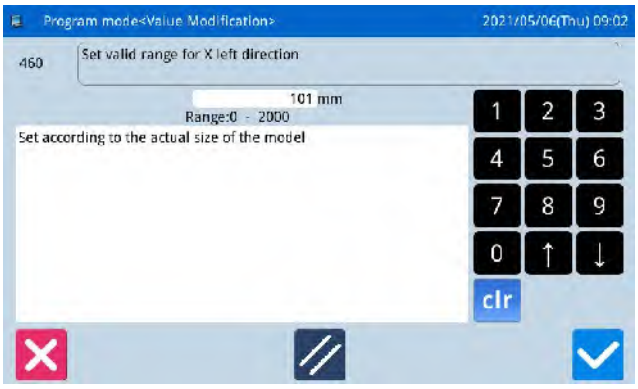
If user wants to restore the entire setting to their default values, he can press “Restore All”. After that user only needs to follow the instruction of the system.

2.8.2 Types of Parameter Setting

There are two ways for setting parameter: selection type and input type, as shown below:



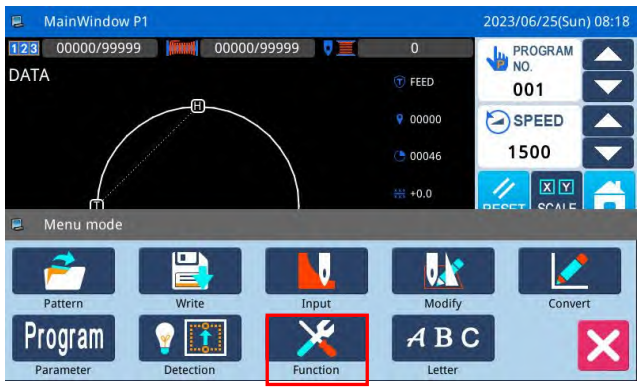
Selection Type

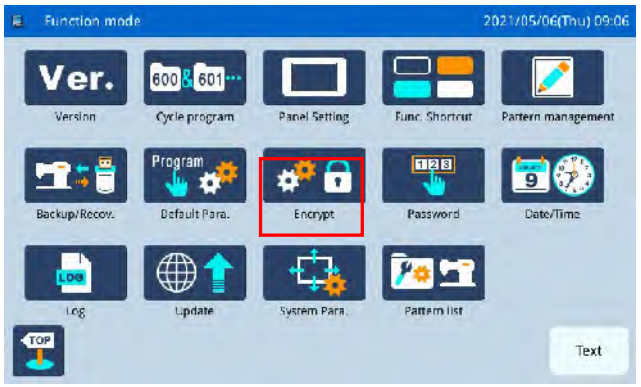


Input Type

2.8.3 Parameter Encryption

In the parameter mode, each operation entrance can be attached a password, so as to avoid the mistake operation.





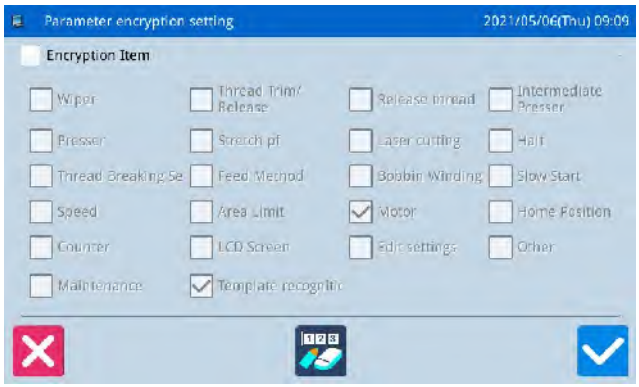
1、Enter Parameter Encryption Interface:

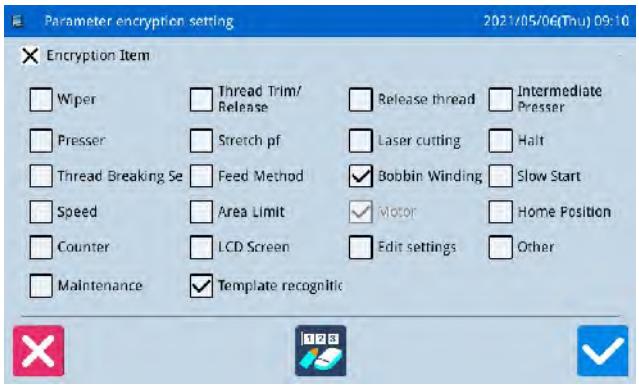
In main interface P1 (or P2), press  to activate the catalogue mode, and then press 

to Enter the interface for setting functions.

In the function setting interface, press 

.





2、Select Parameter for Encryption：

As shown in the picture, user can select one or many parameters for encryption. (Here, we select “Bobbin Winding”.)

☑ Bobbin Winding：Selected

☐ Bobbin Winding：Unselected

After selecting the parameter for encryption, user can press .

From then on, user has to input password when setting the parameter that was encrypted.

For changing password, please press .

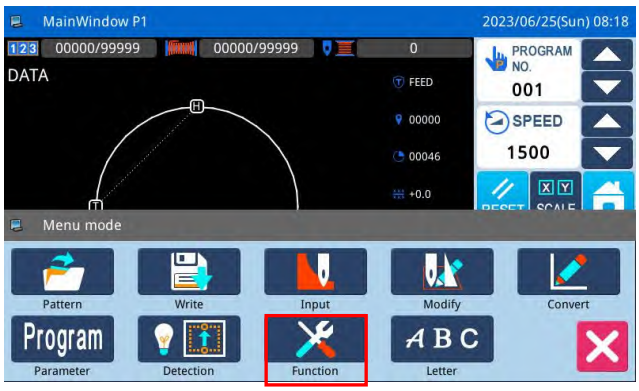
3、Change Password

In the interface of setting new password, press Cur-Password: New-Password: & Confirm: in order and input the current password, new password, new password confirmation respectively. At last press .

[Note]: The original password is the manufacturer ID. After setting the password, the current password is the password set last time.

2.8.4 Recovery and Back-up of Parameters

User can save the changed parameter into U disk for the recovery operation in future.

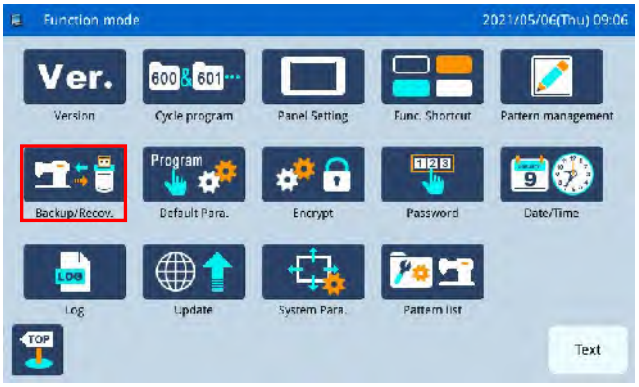


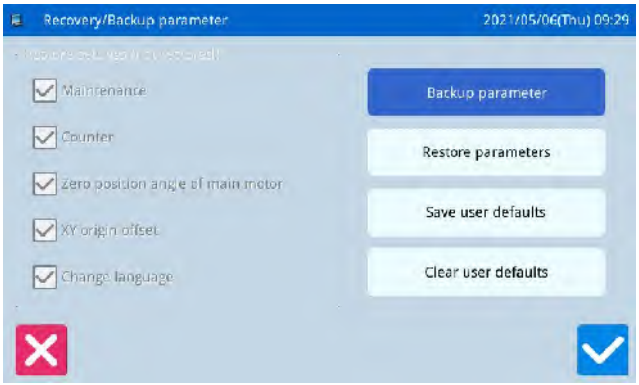
1 、 Enter Interface of Parameter Recovery and Back-up:

In main interface P1 (or P2), press  to activate the catalogue mode, and then press 

to Enter the interface for setting functions.

In the function setting interface, press 



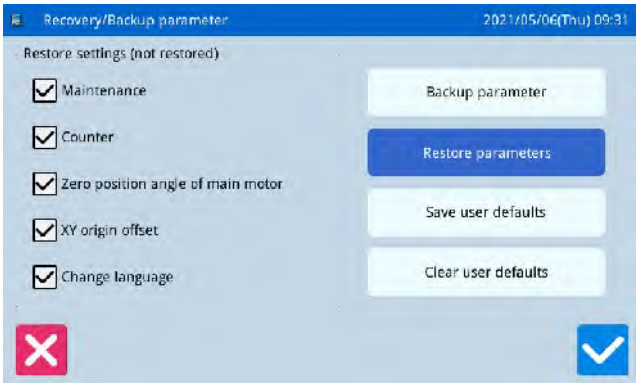


2、Back up Parameters

Enter the restore backup parameters interface. By default, backup user parameters.

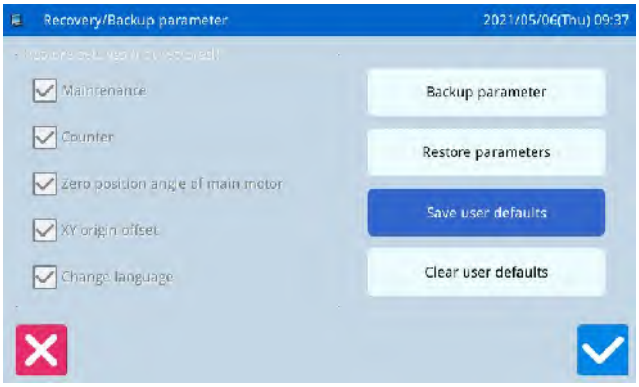
After inserting the usb flash drive, press  . Once the operation is successful, a "bakParam" directory will be automatically created on the usb flash drive. The "backup.param" file in this directory is the parameter backup file.

[Note] if there is a file with the same name, it will be stamped with new data and the original data will disappear.



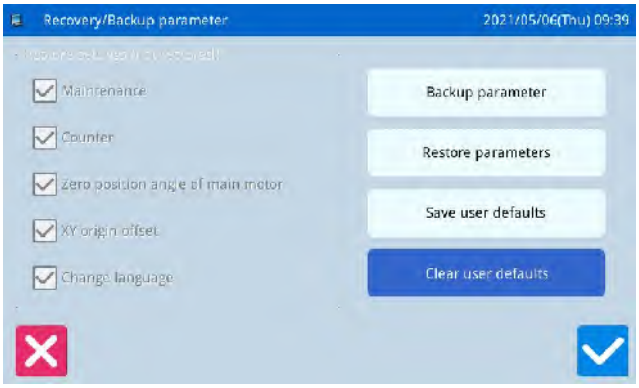
3、Restore parameters

Click the "restore mode" key to select the parameters that are not restored on the left side of the interface, and then press the "ok" key to perform the parameter restore operation, and return to the previous screen after the operation is successful.



4、Save user defaults

Select the "write user default value" key, press the "ok" key, the system will prompt for the input of permission 2 password, after the successful input will directly perform this operation.



5、Clear user defaults

After successfully writing the user default value, the "clear user default value" key is optional, and the user default value can be cleared by pressing .

2.8.5 Default Parameter Recovery

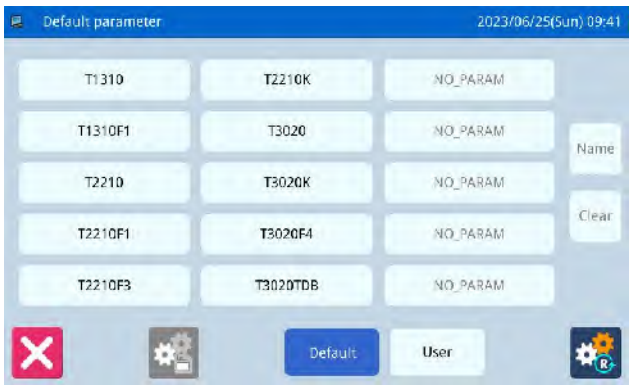
User can restore the parameters to their default values. Additionally, user can also save the set parameters for the usage in future.

1、Enter Default Parameter Recovery:

In main interface P1 (or P2), press to activate the catalogue mode, and then press to enter the interface for setting functions.

In Function Setting Interface, press 

and then input the password (the original password is the manufacturer ID). With the correct password, user can enter Default Parameter Mode

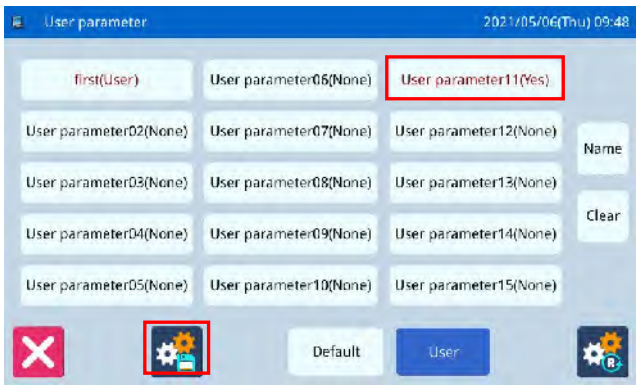


2、Use the Default Parameter

Click the corresponding default parameter and then press “System Default” to reload that value

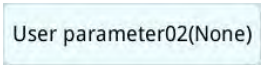
After the reloading, the system will return to the upper interface automatically.

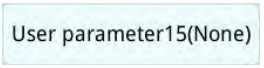
[Note] Some important parameter, like “Spindle Motor Stop Angle” cannot be restored in this operation.



3、Save Customized Parameter

Press “Custom” to enter the interface of Customized parameter setting interface, where user can save the parameter set value.

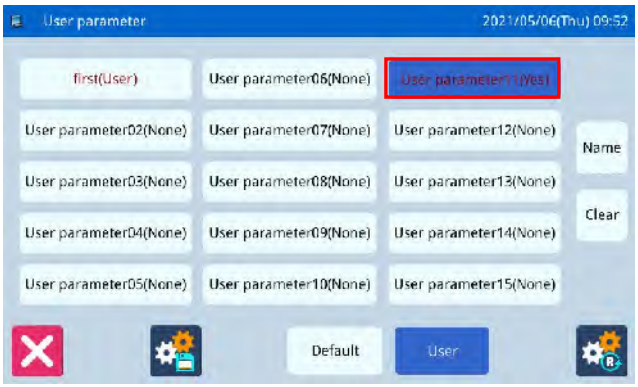
Click 

~ 

to confirm the position for saving, and then click  to save it.

After the saving, the system will return to the upper interface automatically

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



4、Load Parameter Saved by User

The method to enter the interface is the same as above,Check the content on button “Customized Parameter xx (Y/N)”. If it is Y in the bracket, it means there is saved customized parameter.

Click that key and press  to reload the corresponding parameter. After the operation, the system will return to the upper interface automatically.

2.8.6 Parameter List

1、Wiper

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
566	Clamping device	Start thread nipper switch,A-1 parameter need to be set OFF			OFF:OFF ON:ON	OFF	Choose
557	Wiper type selection	Wiper type selection			0:Default 1: Using electromagnet thread sweeping device 2: Use pneumatic thread sweeping device	0	Choose
A-1	Wiper on/off	Wiper(W) output on/off			OFF:The wiper is off ON:The wiper is on	ON	Choose
A-2	Wiper start time	The output start time of the Wiper output(W) can be set.Please set referring to thread trimming timing chart.Usually without modification.	ms	2	0~998	30	Input
A-3	Wiper hold time	The output start time of the Wiper output(W) can be set.Please set referring to thread trimming timing chart. It can be added when need a long time.	ms	2	0~998	30	Input
A-4	Wiper end delay	Time delay after wiper action to wait for body reset	ms	1	0~255	0	Input
A-6	Holding current of thread nipper with stitch start	Holding current of thread nipper with stitch start		1	0~16	8	Input

A-7	Take-up occasion options	Take-up occasion options			0:mid-pressor top 1:mid-pressor top(down position) 2:mid-pressor bottom	0	Choose

2、Thread Trim Sequence

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
150	Reverse stitch up	Angle of needle position finding after thread trimming			0: Up needle position 1: Up dead point	0	Choose
164	Thread trimming on/off	Thread trimming on/off			0:OFF 1:ON	1	Choose
B-2	Thread trimming mode	Thread trimming mode			0: Solenoid 1: Air valve 2: Motor	0	Choose
B-3	Trimming speed	Trimming speed	x10RPM	1	10~40	35	Input
B-5	Delay at turning on thread trimming	Delay at turning on thread trimming	x0.01s	1	0~255	25	Input
B-6	Trimming output start angle	Trimming output start angle	Degree	2	0~359	20	Input
B-7	Auto trimming for pattern edit	Auto trimming for pattern edit			OFF:OFF ON:ON	ON	Choose
B-8	Whether trim before feed	Whether trim before feed			OFF:OFF ON:ON	OFF	Choose
B-9	Whether trim at sewing end	Whether trim at sewing end			OFF:OFF ON:ON	ON	Choose
B-10	Stop angle correction value of up position after trimming	Stop angle correction value of up position after trimming	Degree	1	0~100	0	Input

3、Release Thread

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
551	Thread release setting at the start of sewing	Number of stitches at which the thread release opens when sewing starts	stitch	1	0~3	0	Input
552	Release thread synchronization during thread trimming	Starting angle of release thread	Degree	2	0~359	340	Input
564	Thread release mode	0: Low, open, unlimited 1: Medium, closed, 5 minutes 2: High, off, 1 minute 3: Medium, open, unlimited 4: High, off, 5 minutes		1	0~5	5	Input

		5: Act according to the given value of threading time and threading current					
567	Whether to open the thread release after emptying	Cooperate with B-8 is ON before space feeding,turn off the function of loose thread before air feeding			OFF:OFF ON:ON	OFF	Choose
C-1	Thread nipper type	Select a type of thread nipper			0:Mechanical thread nipper 1:Electrical thread nipper	0	Choose
C-2	Delay at turning on thread releasing	Delay at turning on thread releasing		1	0~255	30	Input
C-4	Open Delay for loosing organ when puncturing thread	Open Delay for loosing organ when puncturing thread		1	0~255	55	Input
C-5	Thread tension adjustment	Thread tension adjustment		1	0~255	8080	Input
C-6	Whether to open the thread releasing device after sewing end	Whether to open the thread releasing device after sewing end			OFF:OFF ON:ON	OFF	Choose

4、Middle Presser

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
053	Delay time after intermediate presser up	Delay time to prevent colliding with mold in movement	ms	1	0~255	1	Input
054	Intermediate presser foot fall time	Intermediate presser foot fall time			0: Before the start of sewing machine 1: Synchronize with the final presser foot	1	Choose
D-1	Intermediate presser type	Intermediate presser foot valve,stepping,solenoid selection			0:Air Valve 1:Step motor 2:Solenoid	1	Choose
D-3	Intermediate presser current	Intermediate presser current		1	2~8	8	Input
D-5	Setting for stroke of Intermediate presser	Intermediate presser up & down standard value	x0.1mm	2	0~220	150	Input
D-6	Delay of the Intermediate presser down	Delay of the Intermediate presser down		1	0~255	0	Input
D-7	Intermediate Presser Move Speed	Intermediate Presser Move Speed		1	8~17	88	Input
D-9	Whether moving intermediate presser	Whether moving intermediate presser			OFF:OFF ON:ON	ON	Choose

D-16	Number of stitches lowered in the intermediate presser foot	Number of stitches lowered in the intermediate presser foot		1	0~3	0	Input
D-17	Lowered height of the middle presser foot	Lowered height of the middle presser foot	x0.1mm	1	0~30	0	Input

5、Presser

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
001	Presser foot raising method after sewing end	Presser foot state after sewing,effective when 058 press foot action is 0 at the end of sewing			0:After returning to the starting point, the presser foot rises again 1:The presser foot rises immediately after sewing 2:Return to the starting point first, and then press the foot and then rise after the pedal	0	choose
002	Lowering movement of left and right separation presser foot(pneumatic)	Left and right separation presser foot lowering movement			0: Lower left and right presser foot 1: Presser foot descends first left then right 2: Presser foot descends right then left	0	choose
003	Clamp lowering action (motor)	Motor control frame analog pedal control mode			0: Simulated descent: Decide the descent amount according to the amount of pedal depression, start in the end 1:1st step down: 1st gear presser foot drop ,start at 2nd gear 2 :2nd stage descent: stop in the first gear , start after the 2nd gear	0	choose
050	Work mode of presser foot	0: Standard double pedal, press the pedal to control the big press foot, and start the pedal to start the sewing 1: Standard double pedals. Press the pedal to control the lifting of the big presser foot and auxiliary presser foot at intervals. Start the pedal to start the sewing 2: Standard double pedals, press the pedals at left and right intervals,and		1	0~10	2	input

		start the pedals to start sewing 3: Standard three pedals, the pressing pedal controls the big presser foot, the middle pedal controls the auxiliary presser foot, and the starting pedal starts sewing 4: Left and right presser feet -> 2 presser feet intermittent presser foot. The 1st gear of single pedal is left and right presser foot the 2nd gear is intermittent presser foot, and the 3rd gear is controlled to start .Three-pedal middle pedal controls intermittent presser foot lifting 5: Two segments of presser foot alternately left and right. Press the pedal to control that the left and right sequences of the two presser feet are interchanged in each sewing. 6: Forward and backward Pedals. Press the pedal to control the left and right presser feet to lift up in sequence, start the pedal to control the left and right presser feet to fall down in sequence, and then step on the pedal to start sewing. 7: Step on the second presser foot twice. The single pedal controls the motor presser foot to switch between the middle position,the descending position and the starting position,and the presser foot rises when retracted.Double pedal pneumatic presser foot action is the same as mode 2 8: Standard three pedals, press the pedal to control the motor press foot to descend to the second level height,and the middle pedal to control the motor presser foot to descend in place, start the pedal to start sewing. 9: Three pedals with origin detection. The middle pedal is dedicated to origin detection,and the left and right presser feet are controlled to rise and fall by pressing the pedal.When the					

		pedal is started, only sewing is started. 10: Special three pedals with origin detection. The middle pedal is dedicated to origin detection.Press the pedal to control the left and right presser feet to rise and fall,and step on the start pedal to automatically drop the right presser foot and start again.					
051	Clamp action before origin detection	Whether the front platen is allowed to move before origin detection			0: Before the origin detection, the up and down movement of the presser foot cannot be performed 1: Before origin detection, the up and down movement of the presser foot can be performed	1	choose
052	Presser foot movement during the seam break program	State of presser foot when stopped halfway			0: Clamp down 1: Clamp up	0	choose
055	Pneumatic pressure frame output polarity reversal	Pneumatic pressure frame output polarity reversal			0: Invalid 1: Pneumatic valve output reversed 2: Since the two positioning valves correspond , the output of the reverse valve is output at the same time	0	choose
058	Presser foot movement at the end of sewing	Presser up after work automatic finish			0:Press automatic lifted after sew finish 1: Presser isn’t lifted after sew finish	0	choose
059	Clamp weight selection	Clamp weight selection			-1:Light 1:Standard 0: Heavy	-1	choose
E-1	Clamp type selection	Clamp type selection			0:Air-Actuated 1:Solenoid 2:Motor	0	choose
E-2	Whether Sew when press is up	Whether Sew when press is up			OFF:Can't Sew ON:Can sew	OFF	choose

E-7	Up action of left-right separate clamp	Left and right separation pressing plate rising action,effective when pressing foot action is 0 at the end of sewing 058			0:Clamp lifted after completion of processing 1:Left clamp continuous down after completion of the processing 2:Right clamp continuous down after completion of the processing	0	choose
E-9	Single pedal operation permission	Single pedal operation permission			OFF:Disable ON:Enable	ON	choose
E-10	2 Phase press enable	Enable the two-stage pressure plate,effective when the type of e-1 pressure plate is 2-motor			OFF:Disable ON:Enable	OFF	choose
E-11	2 phase presser height	2 phase presser height		1	0~255	80	Input
E-12	Setting of presser range	Setting of presser range		1	0~200	180	Input
E-13	Setting of presser current	Setting of presser current		1	0~15	2	Input
E-14	Delay start setting after pedal	Delay start setting after pedal			OFF:Disable ON:Enable	OFF	choose
E-15	Delay after pedal start	Delay after pedal start		1	0~200	20	Input
E-16	Whether the clamp is lifted at the secondary origin	Whether the clamp is lifted at the secondary origin			0:Do not lift the clamp 1:Lift the clamp	0	choose
E-17	Auxiliary clamp number	Auxiliary clamp number		1	0~3	0	choose

6、Stretch Presser

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type

556	Reverse device	Reverse foot and expansion foot support 0 - Nothing 1-Reverse foot (F1 foot) 2- Expansion foot (Stop) 3 - F2 foot 4 - K foot 5- Expansion foot (Dot not stop)		1	0~255	0	Input
F-2	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	Choose
F-3	Delay time of putting out stretch presser	Delay time of putting out stretch presser	x0.01s	1	0~255	30	Input
F-4	Delay time of ascending stretch presser	Delay time of ascending stretch presser	x0.01s	1	0~255	45	Input
F-5	Delay time of descending stretch presser	Delay time of descending stretch presser	x0.01s	1	0~255	30	Input

7、Laser Cutting

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
G-2	X direction offset of laser cutting	X direction offset of laser cutting	x0.1mm	1	-5000~5000	0	Input
G-3	Y direction offset of laser cutting	Y direction offset of laser cutting	x0.1mm	1	-2000~2000	0	Input
G-4	Laser cutting speed	Laser cutting speed		1	1~50	1	Input
G-5	Laser suction switch	Laser suction switch			OFF:OFF ON:ON	OFF	Choose
G-6	Laser aspirating opening delay	Laser aspirating opening delay		1	0~65535	100	Input
G-7	Laser aspiration shutdown delay	Laser aspiration shutdown delay		1	0~65535	100	Input
G-8	Delay before laser start up	Delay before laser start up		1	0~65535	100	Input
G-9	Delay after laser head descends	Delay after laser head descends		1	0~65535	100	Input
G-10	Delay after the laser head is raised	Delay after the laser head is raised		1	0~65535	100	Input
G-11	Inflection point deceleration method	Inflection point deceleration method			OFF: Off L-ON:Only the laser	OFF	Choose

					segment starts S-ON :Only the sewing section starts ALL:Both the laser section and the sewing section are activated		
G-12	Whether to deal with laser offset in advance	Whether to deal with laser offset in advance			0:No Merge 1:Merge with the empty near the cut section 2:Merge with the empty before the cut section	1	Choose
G-13	Delay of the laser closed	Delay of the laser closed		1	0~65535	0	Input

8、Halt

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
651	Determine the needle stop position when sewing is interrupted according to the pause switch	When the needle position is suspended,when b-2 wire cutting mode is 2-motor,the positioning under the needle is invalid.			0:Needle down position 1: Needle up position	1	Choose
652	Thread trimming action during pause Auto trim at halt	Thread trimming action during pause Auto trim at halt			0: Auto thread trimming 1:Not thread trimming	0	Choose
656	Reset mode during pause	Reset mode during pause			0: Move to the sewing start point after reset 1: Without returning to the origin,move backwards on the sewing path to the sewing start point	0	Choose
H-2	Clamp action at halt	Clamp action at halt			0：Clamp down 1：Clamp up	0	Choose
H-3	Halt switch type	Halt switch type			0: Normal close 1: Normal open	1	Choose
H-5	Safe switch type	Safe switch type			0: Normal close 1:Normal open	0	Choose
H-6	Needle angle of down pause	Needle angle of down pause		1	180~230	180	Input

9、Thread Breaking Sensor

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
554	Thread breaking device	Thread breaking detection			OFF:Thread breaking detection off ON:Thread breaking detection on	OFF	Choose

555	Detection sensitivity of thread breaking device	Invalid stitches at sew start in the thread breaking detection	stitch	1	0~15	3	Input
I-3	Invalid stitches at sew midway in the thread breaking detection	Invalid stitches at sew midway in the thread breaking detection	stitch	1	0~15	3	Input
I-4	Whether thread trimming at thread breaking detection	Whether thread trimming at thread breaking detection			0：Perform thread trimming when thread breaking 1： Don't perform thread trimming when thread breaking	0	Choose
I-5	Breaking detection sensor sensitivity	Wire breaking sensor sensitivity,special pulse type wire breaking device effective		1	1~10	4	Input
I-6	Skip needle detection	Skip needle detection			0:NO 1:Yes	0	Choose
I-7	Process mode after break line	Process mode after break line			0:In the current position 1:To the start position of trace	0	Choose
I-8	Thread breaking device type	Thread breaking device type			0:Switch type(thread take-up spring) 1:Impluse type break detection 2:Duration break detection 3:Monitoring active level	0	Choose
I-9	Thread breaking device control parameter	Thread breaking device control parameter		1	0~255	5	Input

10、Feed Method

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
200	1 stitch detection feed	1 stitch detection feed mode			0: Depress the foot switch to automatically run to the last stitch 1:Depress the foot switch	0	Choose

					to advance stitch by stitch.After the cloth feed starts,feed the cloth one by one by turning the handwheel		
252	High-speed test feed	High-speed test feed			0: Normally stepping into the first step of the foot switch slowly is for high-speed feeding 1: Test feed speed is the same as sewing speed	0	Choose
260	Change all feed synchronization	-10:advance, 0:standard, 10：delay Each number corresponds to 8 degrees		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 degrees		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 degrees		1	-10~10	0	Input
263	Change the synchronization of the third stitch at the sewing start	-10：advance, 0:standard, 10：delay Each number corresponds to 8 degrees		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 degrees		1	-10~10	0	Input
265	Change the feed synchronization of 2 stitches before the end of sewing	-10：advance, 0:standard, 10：delay Each number corresponds to 8 degrees		1	-10~10	0	Input
266	Change the feed synchronization of 1 stitch before the end of sewing	-10：advance, 0:standard, 10：delay Each number corresponds to 8		1	-10~10	0	Input

		degrees					
267	Feeding synchronous effective stitched	When all feeds are synchronized c from the initial value of (No.260 setting), specify the effective number of stitches: 0: Unlimited 1~99: If the number of stitches specified at the start of sewing is exceeded, return to the standard feed synchronization		1	0~99	0	Input
268	Change the reference of feed synchronization	Change the reference of feed synchronization			0: Feed start reference 1:Upper needle reference 2: Feed end reference 3: Speed linkage	2	Choose
J-1	Cloth thickness selection	Cloth thickness selection			0:Thin 1:Middle 2:Thick	0	Choose
J-2	Setting value when thin cloth thickness[L]is selected	Setting value when thin cloth thickness[L]is selected		1	0~255	0	Input
J-3	Setting value when middle cloth thickness[L]is selected	Setting value when middle cloth thickness[L]is selected		1	0~255	15	Input
J-4	Setting value when thick cloth thickness[L]is selected	Setting value when thick cloth thickness[L]is selected		1	0~255	30	Input
J-5	Step sew mode	Step sew mode			0:Stop at release button 1:Continue to move at release button	0	Choose
J-10	Rapid movement mode(Editting)	How to move two points in editting and pattern modification			LINE:Line PAT:Pattern	PAT	Choose
J-15	Moving frame gain curve	Moving frame gain curve		1	1~3	1	Input
J-16	X-axis rigidity fine adjustment	X-axis rigidity fine adjustment		1	-30~ 30	0	Input
J-17	X axis speed fine adjustment	X axis speed fine adjustment		1	-50~ 50	0	Input
J-18	Y-axis rigidity fine adjustment	Y-axis rigidity fine adjustment		1	-30~ 30	0	Input
J-19	Y axis speed fine adjustment	Y axis speed fine adjustment		1	-50~ 50	0	Input

11、Bobbin Winding

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type

056	Whether winding is allowed before origin detection	Whether winding is allowed before origin detection			OFF:No ON:Yes	OFF	Choose
K-1	Bobbin winding speed setting	Bobbin winding speed setting	x100RPM	1	2~27	18	Input
K-2	Bobbin winding stop method setting	Bobbin winding stop method setting			0:Stop winding when pedal up 1:Stop winding when stepping on pedal again 2:Time to stop winding	1	Choose
K-3	Time of stop winding setting(unit second)	Time of stop winding setting(unit second)	s	2	2~498	30	Input

12、Slow Start

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
100	Sewing start speed	Whether start slowly			0:Slow 1: Fast	1	Choose
151	Fast start speed of 1st stitch	Fast start speed of 1st stitch	x100RPM	1	2~30	4	Input
152	Fast start speed of 2nd stitch	Fast start speed of 2nd stitch	x100RPM	1	2~30	8	Input
153	Fast start speed of 3rd stitch	Fast start speed of 3rd stitch	x100RPM	1	2~30	12	Input
154	Fast start speed of 4th stitch	Fast start speed of 4th stitch	x100RPM	1	2~30	27	Input
155	Fast start speed of 5th stitch	Fast start speed of 5th stitch	x100RPM	1	2~30	27	Input
156	5 stitches speed before the end of sewing	The given speed from the last 5th stitch	x100RPM	1	4~27	27	Input
157	4 stitches speed before the end of sewing	Speed given from the last 4th stitch	x100RPM	1	4~27	27	Input
158	3 stitches speed before the end of sewing	Speed given from the third last count	x100RPM	1	4~27	12	Input
159	2 stitches speed before the end of sewing	Speed given from the second to last	x100RPM	1	4~27	4	Input
L-1	Start speed of 1st stitch	Start speed of 1st stitch	x100RPM	1	2~30	4	Input
L-2	Start speed of 2nd stitch	Start speed of 2nd stitch	x100RPM	1	2~30	4	Input
L-3	Start speed of 3rd stitch	Start speed of 3rd stitch	x100RPM	1	2~30	6	Input
L-4	Start speed of 4th stitch	Start speed of 4th stitch	x100RPM	1	2~30	9	Input

L-5	Start speed of 5th stitch	Start speed of 5th stitch	x100RPM	1	2~30	20	Input
L-6	Mode of start backtack	Mode of start backtack			0:None 1:Condensed sewing at the first stitch 2:Backtack at begining several stitches	0	Choose
L-7	Stitch of start backtack	Stitch of start backtack		1	-4~4	0	Input
L-8	Mode of end backtack	Mode of end backtack			0:None 1:Condensed sewing at the final stitch 2:Backtack at ending several stitches	0	Choose
L-9	Stitch of end backtack	Stitch of end backtack		1	0~4	0	Input

13、Speed

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
251	Feed speed	The larger the value, the faster the feed	Stall	1	0~9	4	Input
M-1	High speed setting	High speed setting	x100RPM	1	2~30	27	Input
M-2	Low speed setting	Low speed setting	x100RPM	1	2~30	2	Input
M-3	Middle speed 1[MD1] setting	Middle speed 1[MD1] setting	x100RPM	1	2~30	15	Input
M-4	Middle speed 2[MD2] setting	Middle speed 2[MD2] setting	x100RPM	1	2~30	10	Input
M-5	Feed delay setting	Feed delay setting		1	0~255	0	Input
M-6	Edit delay setting	Edit delay setting		1	0~9	4	Input
M-11	Speed of returning to start position setting	Speed of returning to start position setting		1	0~9	4	Input
M-12	Time of returning to home position setting	Time of returning to home position setting(The larger values,the time slower)		1	5~10	6	Input
M-13	Speed of step sewing setting	Speed of step sewing setting		1	0~40	30	Input
M-14	Ratio of sewing speed	Ratio of sewing speed	%	5	70~100	100	Input

14、Area Limit

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type

460	Set valid range for X left direction	Set according to the actual size of the model	mm	1	0~2000	110	Input
460-R	Set valid range for X right direction	Set according to the actual size of the model	mm	1	0~2000	110	Input
461	Set valid range for Y upper direction	Set according to the actual size of the model	mm	1	0~2000	50	Input
461-D	Set valid range for Y down direction	Set according to the actual size of the model	mm	1	0~2000	50	Input
N-1	Cancel range protection	Cancel range protection			OFF:Range protection off ON:Range protection on	ON	Choose
N-6	Forbid x direction moving	Forbid x direction moving			OFF:OFF ON:ON	OFF	Choose

15、Motor

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
161	Penetration enhancement	Penetration enhancement			OFF:Invalid ON:When the sewing machine motor is locked, the penetration force is increased	OFF	Choose
165	Reverse needle rising angle	Angle of up dead point setting	Degree	1	0~50	3	Input
P-1	X motor turn direction	X motor turn direction			0:Positive 1:Negative	1	Choose
P-2	Y motor turn direction	Y motor turn direction			0:Positive 1:Negative	1	Choose
P-3	Z motor turn direction	Z motor turn direction			0:Positive 1:Negative	0	Choose
P-4	X sensor is on the left or right side of the machine head	X sensor is on the left or right side of machine head			L:Left side R:Right side	L	Choose
P-5	Y sensor in the front or back side of the machine head	Y sensor in the front or back side of the machine head			F:Front B:Back	B	Choose
P-6	Main shaft motor type selection	550W and 750W support			550:550W D00:750W-D00/F11 F00:750W-F00	DOO	Choose
P-7	stop angle of main motor	stop angle of main motor	Degree	1	30~63	59	Input
P-9	Setting of frame moving direction of P2interface	Setting of frame moving direction of P2interface			0:Syntropy 1:Negative	1	Choose

16、Home Position

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
057	Presser foot movement when the sewing start point moves after origin detection	Presser foot movement back to origin			0: Press the presser foot after returning to the origin 1: Presser foot lifted after returning to origin	1	Choose
250	Mechanical origin reset at the end of sewing	Whether search home position at sew end			0: No home position searching, stop in the same position 1:with home position(the second origin) searching 2:Return to the start sew point 3:Return to origin directly	2	Choose
254	Movement route to the origin position and sewing start position	Ordinary home position search/home position recovery path selection			4: Synchronous X and Y axis	4	Choose
270	Origin action when switching patterns	Origin action when switching patterns			0: No origin search operation 1:Does not perform origin search,but passes through the center of the area 2: Perform origin search	0	Choose
450	Starting point movement mode when switching patterns	Origin action when switching patterns			0:After starting by pedaling,move to the starting point of the new pattern 1: While switching patterns, move to the beginning of the new pattern	0	Choose
Q-1	Return to home position when power on	Return to home position when power on			OFF:Don't return to home position ON:Return to home position	OFF	Choose
Q-2	Forbid returning to home position when clamp up	Forbid returning to home position when clamp up			OFF:Permit returning to home position ON:Forbid returning to home position	OFF	Choose
Q-4	Set reset path of the start sew point	Set reset path of the start sew point			0:Return in straight line path 1: Return in pattern design path 2:Search home position first then return to start sew	0	Choose

					point		
Q-5	Whether to select up dead point when searching home position	Whether to select up dead point when searching home position			OFF:Don’t select up dead point when searching home position ON: Select up dead point when searching home position	OFF	Choose
Q-8	Home position search/home position recovery path selection at reverse	Home position search/home position recovery path selection at reverse			0:Standard 1:Reverse 2:Y-Axis to X-Axis 3:X-Axis to Y-Axis 4:Synchronize X and Y axis	0	Choose

17、Counter

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
R-1	Sets function of up counter	Sets function of up counter			0:Up counter is not executed 1:Up counter increases every 1 sewing pattern is executed 2:Up counter increases every 1 combined data cycle is executed	1	Choose
R-2	Sets function of down counter	Sets function of down counter			0:Down counter is not executed 1:Down counter decreases every 1 sewing pattern is executed 2:Down counter decreases every 1 combined data cycle is executed	1	Choose
R-3	Up counter clear method at the pattern data change is selected	Up counter clear method at the pattern data change is selected			0:Clear 1:Reserve	1	Choose
R-4	Down counter clear method at the pattern data change is selected	Down counter clear method at the pattern data change is selected			0:Clear 1:Reserve	1	Choose

R-5	Sets counter clear method at power supply on	Sets counter clear method at power supply on			0:Clear 1:Reserve	1	Choose
R-6	Prohibition of up counter current value correction	Prohibition of up counter current value correction			OFF:The current value of the UP counter can be modified ON:The current value of the UP counter can't be modified	OFF	Choose
R-7	Prohibition of down counter current value correction	Prohibition of down counter current value correction			OFF:The current value of the UP counter can be modified ON:The current value of the UP counter can't be modified	OFF	Choose
R-8	Operation of sewing machine after count up completion	Operation of sewing machine after count up completion			OFF:Stop sewing ON:Sewing operation can be continued	OFF	Choose
R-9	Operation of sewing machine after count down completion	Operation of sewing machine after count down completion			OFF:Stop sewing ON:Sewing operation can be continued	OFF	Choose
R-11	Shuttle change with counter	Shuttle change with counter			OFF:OFF ON:ON	OFF	Choose

18、LCD Screen

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
401	Cycle program settings	After opening, the PROGRAM button on the main interface P1 changes to the cycle program editing function			OFF:OFF ON:ON	OFF	Choose
S-1	Buzzer voice setting	Buzzer voice setting			0:Mute 1：Panel voice 2:Panel voice+alarm	2	Choose
S-3	Back-Light auto off set	Backlight auto off set, OFF: disable auto OFF, ON: enble auto OFF			OFF:Disable auto off ON:Enable auto off	OFF	Choose
S-4	Wait time of back-light auto off	Wait time of back-light auto off	Minute	1	1~9	3	Input

S-5	Pattern display setting in main interface	Background color of pattern display setting 0: black 1: cyan 2: red 3: green 4: blue 5: purple 6: yellow		1	0~6	0	Input
S-7	Main interface button display style	Set the key display style under the main interface			0：ICN:Icon: 1：TXT:Text	0	Choose
S-8	Button display style	Set button display style at detection and function mode			ICN:Icon TXT:Text	ICN	Choose
S-9	Button display style of modification and conversion	Button display style of modification and conversion			ICN:Icon TXT:Text	ICN	Choose
S-11	Large stitch pattern support	Large stitch pattern support			OFF:OFF ON:ON	OFF	Choose
S-12	Pitch setting of converting vector graphics	Pitch setting of converting vector graphics	x0.1mm	1	10~127	30	Input
S-13	Description of pattern sewing progress	Description of pattern sewing progress			OFF:OFF ON:ON	ON	Choose
S-14	Display settings of pattern switching lock	Display settings of pattern switching lock			OFF:OFF ON:ON	OFF	Choose
S-16	Main interface P1 display style	Main interface P1 display style			S1:style1 S2:style2	S2	Choose
S-18	Selection of shortcut keys for pattern number	Selection of shortcut keys for pattern number			0: The position remains unchanged 1: Automatically becomes first after selection 2: Arrange by number	0	Choose
S-19	Pattern number shortcut key display mode	The main interface P1 display style is effective when style 2			0:List of recently used patterns 1:Fixed pattern number	0	Choose
S-20	Background color of P1 function area of main interface	Background color of P1 function area of main interface		1	0~7	0	Input
S-21	Background color of P1 information area of the main interface	Background color of P1 information area of the main interface		1	0~2	0	Input
S-22	Main interface P1 function area location	Main interface P1 function area location			L:Left side R:Right side	R	Choose

S-23	Main interface P1 addition and subtraction setting key display mode	Main interface P1 addition and subtraction setting key display mode			ALL:Both pattern number and speed key support setting SPD:Speed setting PAT:Pattern number setting	ALL	Choose
S-24	Button style of main interface	Button style of main interface			0:Dark 1:Light	0	Choose
S-25	Preset time tips	0 means off,others means the preset time is prompted a few days in advance		1	0~7	0	Input

19、Editting Settings

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
T-1	Editting operating style	Editting operating style			S1:Style 1 S2:Style 2	S2	Choose
T-2	Algorithm of backtack in multisewing	Algorithm of backtack in multisewing			0:According to segment 1:Only start and end	0	Choose
T-3	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)	ON-F	Choose
T-4	Shortcut keys for break point of curves	Shortcut keys for break point of curves			OFF:OFF ON:ON	ON	Choose
T-5	Restore sewing style after input feed	Set restore sewing style after input feed			0:Keep shape 1:Line	0	Choose
T-6	Needle reduction after editing	Needle reduction after editing			OFF:No ON:Yes	OFF	Choose
T-7	Reference point setting for modification of start sew	Reference point setting for modification of start sew			0:Home 1:2HP	0	Choose
T-8	Magnification method	Magnification method in pattern edit			0:Square 1:Length and width	1	Choose
T-9	Display sew point?	Display sew point?			0:No 1:Yes	1	Choose
T-10	Method of pattern convert	Method of stitch index selection in multi-sew,offset-sew,backtack,zigzag or swap sart/end			0:Stitch 1:Element	0	Choose
T-11	Scale unit	Scale unit			0:Percent 1:Size	0	Choose
T-12	Scale mode of multi-sewing	Scale mode of multi-sewing			0:Variable 1:Fixed	1	Choose

T-13	Size calculation method of zoom function	Size calculation method of zoom function			0:From home 1:From start sew point	0	Choose
T-14	Return method after modify finishing	Return method after modify finishing(point and code)			0:Function selection 1:Continue to modify	0	Choose
T-15	Mode of multi-sewing offset-sewing convert and insert section	Mode of multi-sewing offset-sewing convert and insert section (whether impact position of following elements)			0:Relative 1:Absolute	0	Choose
T-16	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	Choose
T-17	Whether 2HP is rotated in rotate function	Whether 2HP is rotated in rotate function			0:No 1:Yes	0	Choose
T-18	Algorithm of parallel curve	Algorithm of parallel curve			A1:Algorithm-1 A2:Algorithm-2 A3:Algorithm-3	A3	Choose
T-19	Criterion of angle to form a corner point	Criterion of angle to form a corner point:0:none,180:all	Degree	1	0~180	90	Input
T-20	Feed pitch setting	Feed pitch setting	x0.1mm	1	10~120	120	Input
T-21	Open adding corner deceleration after edit	Open adding corner deceleration after edit			OFF:No ON:Yes	OFF	Choose
T-22	Show scale of shape point	Show scale of shape point			OFF:OFF ON:ON	OFF	Choose
T-23	Shape outline display of pattern edit	Shape outline display of pattern edit			OFF:OFF ON:ON	ON	Choose
T-24	Edit following action setting	Edit following action setting			OFF:Disable ON:Enable	OFF	Choose
T-25	Small stitch shape fusion	Only for straight lines, shape points within 1mm distance will merge the previous feature			OFF:OFF ON:ON	OFF	Choose
T-26	Automatically enlarge according to the outline size of the pattern	Automatically enlarge according to the outline size of the pattern			OFF:OFF ON:ON	ON	Choose
T-27	Pause code expansion air valve function	Pause code expansion air valve function			OFF:OFF ON:ON	OFF	Choose
T-28	Middle presser foot height modification mode	Middle presser foot height modification mode			0:Stitch 1:Segment	0	Choose

T-29	Segment movement type	Segment movement type			0:Simple 1: Complex	0	Choose
T-30	Import graphics data	Import graphics data			0: Single(absolute and relative mode modification) 1: Multi	0	Choose
T-31	Point movement and segment movement change track	Point movement and segment movement change track			0: OFF 1:ON	0	Choose
T-32	Empty line combine after point move	Empty line combine after point move			0:No 1:Yes	0	Choose
T-33	Engraving bit compensation	Engraving bit compensation			OFF:OFF SHR:Shrink and align the outer edge of the bit MAGN:Zoom in,align inside edge of bit	OFF	Choose
T-34	Positioning hole opening	Positioning hole opening			OFF:OFF ON:ON	OFF	Choose
T-35	The x-coordinate of hole A	The x-coordinate of hole A	mm	1	-2000~2000	51	Input
T-36	The y-coordinate of hole A	The y-coordinate of hole A	mm	1	-2000~2000	51	Input
T-37	The x-coordinate of hole B	The x-coordinate of hole B	mm	1	-2000~2000	51	Input
T-38	The y-coordinate of hole B	The y-coordinate of hole B	mm	1	-2000~2000	51	Input
T-39	Location hole diameter	Location hole diameter	mm	0.1	5.0~10.0	5.0	Input
T-40	Carving bit diameter	Carving bit diameter	mm	0.1	0.0~20.0	2.0	Input
T-41	Setting mode of reference point 2	Setting mode of reference point 2			PRE:Preset fixed value FRE:Choose any point in the pattern	FRE	Choose
T-42	Carve function switch	Carve function switch			OFF:OFF ON:ON	OFF	Choose
T-43	Display coordinate system range	Display coordinate system range			0:No 1:Yes	1	Choose
T-44	Self circle setting for loop curve	Self circle setting for loop curve,only for A3 curve arithmetic			OFF:OFF ON:ON	OFF	Choose

20、Other

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type

550	Needle cooling device	Needle cooling			OFF:No ON:Yes	OFF	Choose
U-1	Change language	Change language			CH:中文 EN:English Bur:Burmese KR:한국어 TK:Turkish JP:日本語 VI:Vietnamese ITA:Italiano PT:Portuguese ES:Español RU:русский	CH	Choose
U-2	Sound setting	Sound function setting			OFF:OFF ON:ON	ON	Choose
U-3	Sound volume of button	Sound volume of button		1	0~31	25	Input
U-7	LED light	LED light		1	0~100	50	Input
U-8	Machine for using auto feeding	Machine for using auto feeding		1	0~10	0	Input
U-9	Close “jump to stitch”autometically	After confirm stitch number, whether close “jump to stitch” autometically			OFF:No ON:Yes	OFF	Choose
U-10	Whether to enter language selection after startup	Whether to enter language selection after startup			OFF:No ON:Yes	OFF	Choose

U-11	Voice recognition function setting	Voice recognition function setting			OFF:OFF ON:ON	OFF	Choose
U-12	DXF file conversion method	DXF file conversion method			0:Simplify 1: complex	0	Choose
U-13	Export to other formats	Export to other formats			OFF:OFF ON:ON	OFF	Choose

21、Maintenance

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
V-1	Change the needle residual value	Change the needle residual value	x1000 Sth	1	0~9999	0	Input
V-2	The set value of replace needle	The set value of replace needle	x1000 Sth	1	0~9999	0	Input
V-3	Cleaning time residual value	Cleaning time residual value	Hour	1	0~9999	0	Input
V-4	The set value of clean time	The set value of clean time	Hour	1	0~9999	0	Input
V-5	Oil replacement residual value	Oil replacement residual value	Hour	1	0~9999	0	Input
V-6	The set value of replacing oil	The set value of replacing oil	Hour	1	0~9999	0	Input
V-9	Bottom line counter number of stitches left	Bottom line counter number of stitches left			0~60000	0	Input
V-10	Bobbin thread remaining counter	Bobbin thread remaining counter		1	0~60000	0	Input
V-11	The method of the bobbin thread counter	Section calculation:alarm at the beginning of the sewing section Number of stitches:alarm in the middle of sewing			0: Calculated by segment 1: According to the number of needles	0	Choose
V-17	Setting of Remaining length of bottorn line detection device	Setting of Remaining length of bottorn line detection device	x0.1M	1	0~5000	0	Input
V-18	Cloth thickness	Cloth thickness	mm	1	0~20	0	Input
V-19	Cut length	Cut length	mm	1	0~50	0	Input

22、Template Recognition

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
W-1	Template identity setting	Template identity setting			OFF:OFF ON:ON	OFF	Choose
W-2	Template identity device	Template identity device			0:Useless 1:Bar code scanner 2:RFID read-write device	0	Choose

W-3	X offset of mark pen	X offset of mark pen	x0.1mm	1	-5000~5000	0	Input
W-4	Y offset of mark pen	Y offset of mark pen	x0.1mm	1	-2000~2000	0	Input
W-5	Running speed of mark pen	Running speed of mark pen		1	1~9	1	Input
W-7	Read pattern from U disk when the pattern number does not exist	Read pattern from U disk when the pattern number does not exist			OFF:OFF ON:ON	OFF	Choose

23、Auto shuttle

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
X-1	Automatic shuttle switch	Automatic shuttle switch			OFF:OFF ON:ON	OFF	Choose
X-2	Shuttle mode	Shuttle mode			0:Manual shuttle change after bottom line alarm 1:Automatic shuttle change when bottom line alarm	1	Choose
X-3	Start mode after shuttle change	Start mode after shuttle change			0:Start manually 1:Automatic start	1	Choose
X-4	Empty bobbin processing method	Empty bobbin processing method			0:Put the bobbin case 1:Put the storage box	1	Choose
X-5	Shuttle arm stop position	Shuttle arm stop position			0:Bobbin case side 1:Machine head side	1	Choose
X-6	Fine adjustment of changing the arm to the head position	Fine adjustment of changing the arm to the head position		1	-100~100	0	Input
X-7	Fine adjustment of shuttle arm to chuck position	Fine adjustment of shuttle arm to chuck position		1	-100~100	0	Input
X-8	Bobbin case motor origin offset	Bobbin case motor origin offset		1	-100~100	0	Input

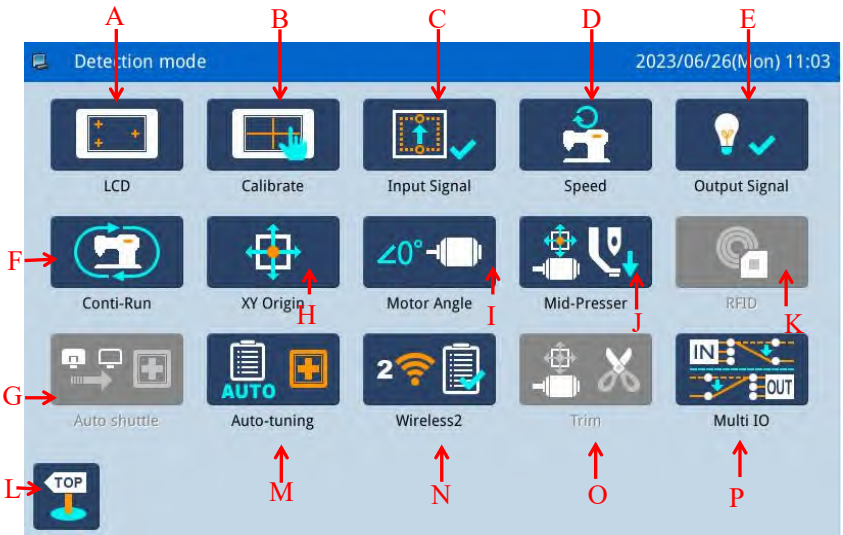
24、Special

No.	Brief description	Detailed instructions	Unit	Step length	Range	Factory value	Type
163	The max sew speed	The max sew speed	x100RPM	1	2~30	27	Input
Y-2	Letter sew function on/off	Letter sew function on/off			OFF:Letter sew function off ON:Letter sew function	ON	Choose

					on		
Y-3	Stitch deceleration curve	Built-in stitch deceleration curve selection		1	0~8	5	Input
Y-4	Max stitch length of no speed reduction	Keeping the max stitch length with the highest speed	x0.1mm	1	1~127	30	Input
Y-5	Increasing communication speed	Increasing communication speed		1	0~1	0	Input
Y-6	Material sweep code identification settings	Material sweep code identification settings			OFF:OFF ON:ON	OFF	Choose

2.9 Test Mode

In main interface P1 (or P2), press  to activate the catalo`gue mode, and then press  to enter the test mode.



Functions：

No.	Functions	Content
A	LCD Test	Test LCD displayer

B	Touching Screen Correction	Correct the touching screen
C	Input Signal Test	Test the input signal of switches and sensors
D	Speed Test	Test the speed of main shaft motor
E	Output Signal Test	Test the output signal of pressers and thread-trimming devices
F	Continuous Running	Set continuous running parameter and enter aging status
G	Automatic shuttle changing	Automatic shuttle changing
H	XY Motor Origin Test	Test the motor origins of X /Y motors
I	Main Motor Installation Angle Adjustment	Display and set the installation angle of main shaft motor
J	Medium pressure Function Test	Used to test intermediate presser
K	RFID	For setting RFID
L	Quit	Quit test mode and return to main interface
M	Self-adjusting	For self-adjusting
N	Wireless module 2	For wireless module 2 detection
O	Shear line detection	For shear line detection
P	Versatile IO	Versatile IO

2.9.1 LCD Test

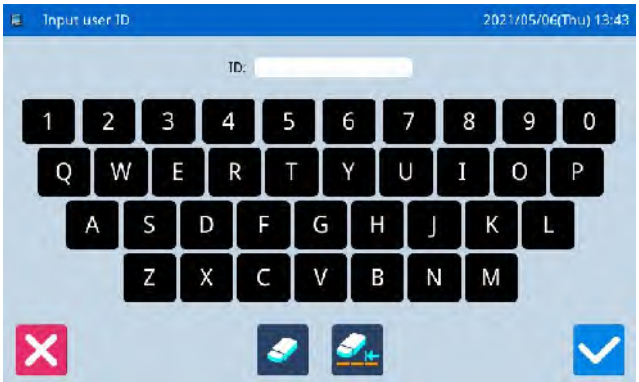
Function:

In the test mode, press 

to activate LCD test function. Click the area other than  to have LCD screen display white, black, red, green and blue so that user can judge whether the LCD screen has problem.

Press  to return to the upper level interface.

2.9.2 Touching Screen Correction



Functions:

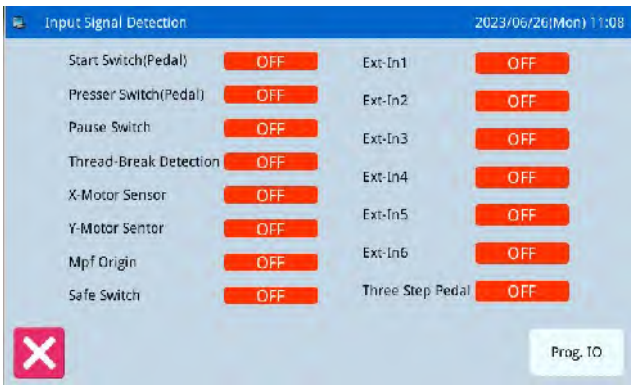
Under test mode, press 

to display the interface for ID input, as shown on the right. Then input the ID and press  to enter touch screen correction function.

User has to correct 5 spots. The touching pen is recommended to be used at touching the cross icon on the interface. After the correction, the system will display the result of this operation

[Note]: During the correction, please perform the operation strictly according to the position of the cross icon, otherwise the touching screen may be unable to be used normally after the correction.

2.9.3 Input Signal Test



Function：

In the test mode, press 

to activate the Input Signal Test Function.

ON：Activation

OFF：Deactivation

Types of Input Signal：

① Start switch (Pedal)

② Presser switch (Pedal)

③ Pause Switch

④ Thread-breakage Detection

⑤ X Motor Sensor

⑥ Y Motor Sensor

⑦ Intermediate presser origin

⑧ Security switch

⑨ External input 1

⑩ External input 2

⑪ External input 3

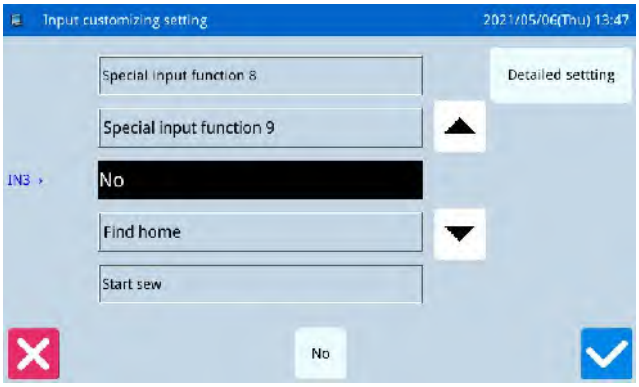
⑫ External input 4

⑬ External input 5

⑭ Three-in-one Pedal

Press  to return to the upper level interface.

Click the programmable IO key Prog. IO to enter the interface of input signal configuration.



Examples:

Click the input 3(N3) key to enter the interface of customized input signal. You can click ▲ ▼ to select the input signal, as follows:

1）No

2）Auxiliary press frame

3）Start sew

4）Sewing speed plus

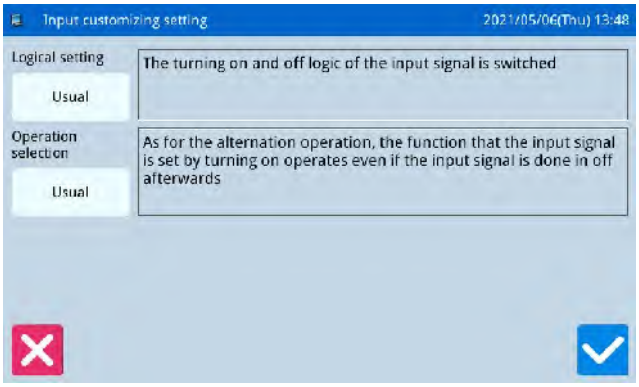
5）Sewing speed reduction

6）Air pressure detection

7）Disconnection detection

8）Special input function 1~9

Click the ok key ✓ to confirm and return to the input signal configuration interface, and click the cancel key ✗ to cancel the operation and return to the input signal configuration interface.



Click the detailed setting key Detailed settting to enter the interface of self-determined input signal. The following parameters can be set:

1）The turning on and off logic of the input signal is switched：

Usual/Reverse

The default value：Usual

2）As for the alternation operation,the function that the input signal is set by turning on operates even if the input signal is done in off afterwards：

Usual/Alternation

The default value：Usual

2.9.4 Main Shaft Speed Test

Functions:

In the test mode, press 

to enter the main shaft speed test function.

Use

and

to set the aim speed of main shaft motor.Through 
and 
, the spindle motor can be set to turn forward or backward.

After user presses 

, the main shaft motor will rotate at the set speed. At this moment, the actual speed will be displayed in the input column of actual speed.

Press 

to stop running

Press 
to return to the upper level interface.

2.9.5 Output Signal Test

Functions:

In the test mode, press 

to activate the output signal test function.

In this interface, user can press output signal button to test the status of output signals of solenoids

Types of Output signals:

① Thread-wiping

② Thread-trimming

③ Presser

④ Intermediate presser

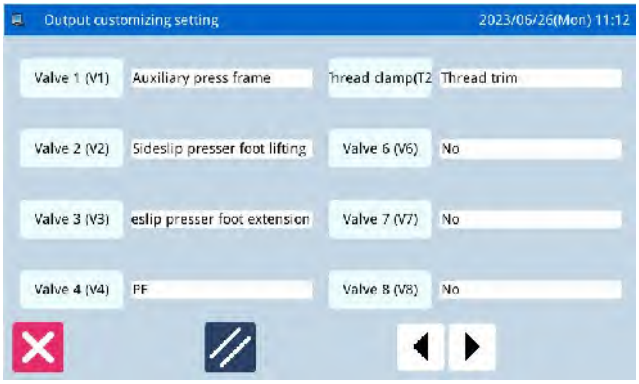
⑤ Thread-loosing

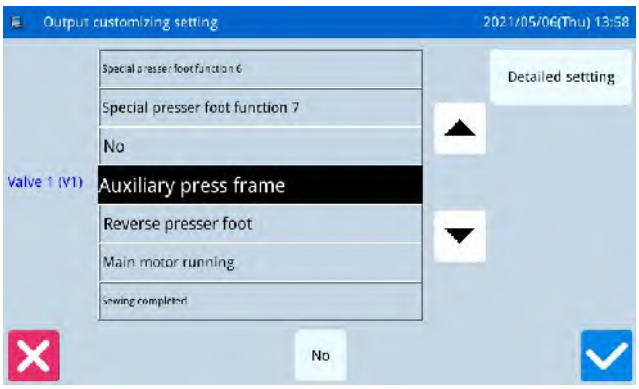
⑥ Clamp T2

⑦ Auxiliary air valve 1~8

Press 
to return to the upper level interface.

[Note]: The sewing machine will have the actual movement.





Output customizing setting:

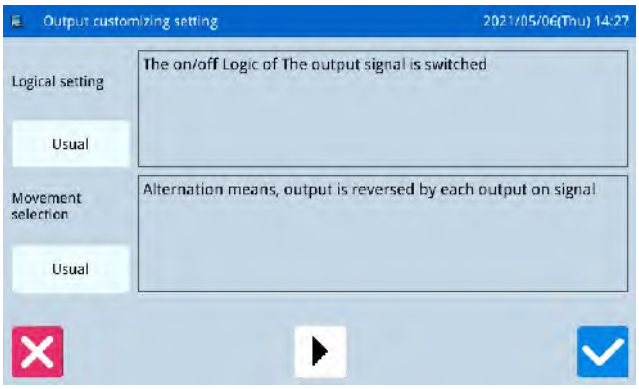
Click [programmable IO] key to enter the interface of self-determined output signal

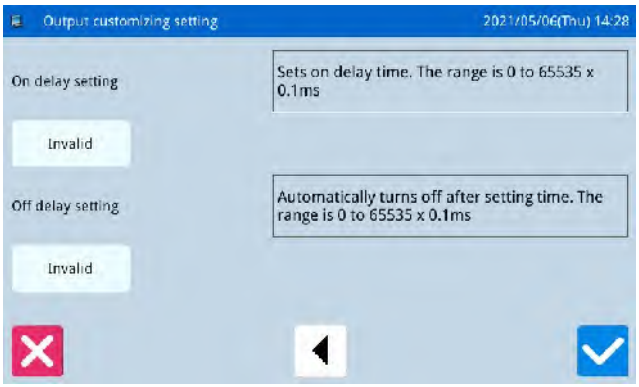
For example:

Click the "valve 1(V1)" key to enter the interface of customized output signal. You can select the output signal by clicking the button , as follows:

1) no
2) auxiliary pressure frame
3) turn over the foot
4) spindle operation
5) finish sewing
6) error status
7) find the origin
8) secondary origin
9) stop in the middle
10) lateral slip press foot expansion
11) sideslip pressure foot lifting
12) line
13) functions 1~9
14) function A/B/C
15)The pressure box falls back to the origin
16) back to the origin pressure box fell
17) laser
18) laser suction
19) laser lifting
Cut line 20)
Loose line 21)
22) line
23) medium pressure foot
24) external pressure frame
25) knife before sewing
26) blow after sewing
27) needle cooling
28) disconnected output
29) emergency stop output
30)Marker pen
31)Laser Positioning Light-Left
32) Laser positioning light-right
33) Auxiliary fixture 1~9
34) Start automatic shuttle change
35)Working indicator
36) Standby indicator
37)Special presser foot function 1~7

Click ok to determine and return to the output signal configuration interface, click cancel





to cancel the operation and return to the output signal configuration interface.

Click the detailed setting key Detailed settting to enter the interface of self-determined output signal. The following parameters can be set:

1) state setting of signal switch:

Usual/Reverse

Default:Usual

2) output inversion:

Usual/Alternation

Default:Usual

3) start delay setting (start delay range 0-65535/10 microseconds)

Invalid/Valid

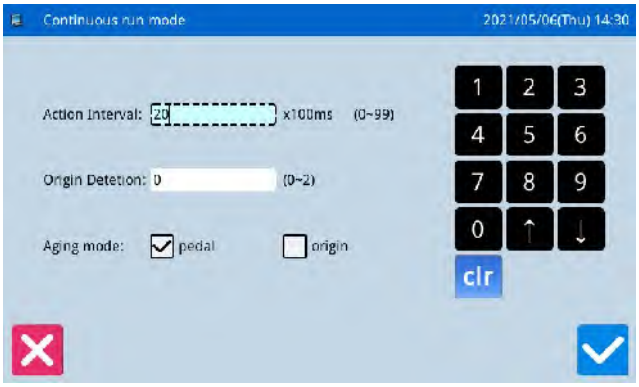
Default: invalid

4) close delay setting (close delay range 0-65535/10 microseconds)

Invalid/Valid

Default: invalid

2.9.6 Continuous Running



Function:

In the test mode, press Conti-Run to enter the continuous running function

Click Action Interval bar or Origin Detection of Needle-withdrawing bar and use number keys to input the figures. Press to return to the upper level interface.

There are two ways to activate the aging status: pedal or origin; after setting this parameter, return to main interface P1 (or P2). Step pedal or press the Return to Origin key to run the machine, and enter continuous running mode.

2.9.7 XY Motor Origin Test

Functions:

In the test mode, press 

to activate the XY Motor Origin Detection Function.

In this interface, use direction keys to move XY motor. During this process, the system will display the ON/OFF status of the sensors.

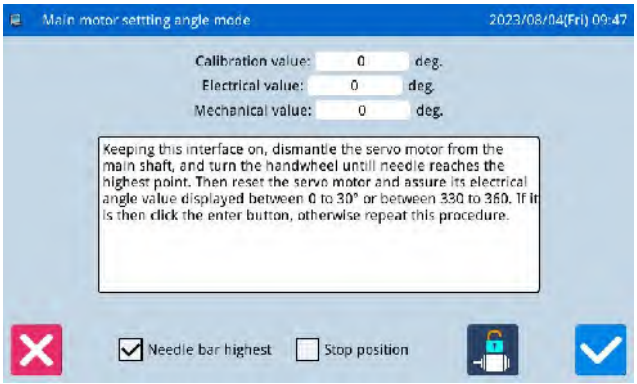
ON：Sensor Detected

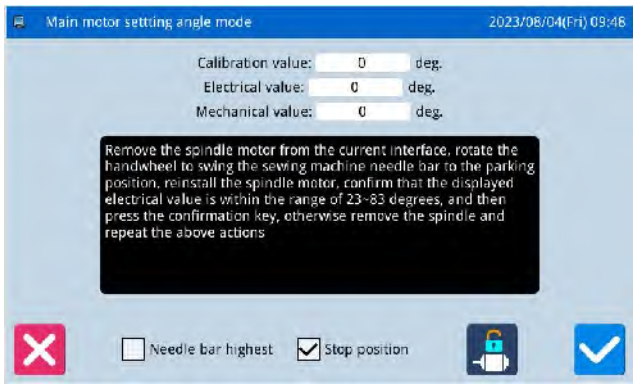
OFF：Sensor Undetected

Press  to return to the upper level interface.

[Note]: The sewing machine will have the actual movement.

2.9.8 Motor Angle





Functions：

In the test mode, press 

to enter the main motor installation angle adjustment.

1）Keeping this interface on, dismantle the servo motor from the main shaft, and turn the hand wheel untill needle reaches the highest point. Then reset the servo motor and assure its electrical angle value displayed between 0 to 30 or between 330 to 360. If it is then click the enter button  , otherwise repeat this procedure.

2）Remove the spindle motor from the current interface, rotate the hand wheel to swing the sewing machine needle bar to the parking position, reinstall the spindle motor, confirm that the displayed electrical value is within the range of 23~83 degrees, and then press the confirmation key  ,otherwise remove the spindle and repeat the above actions

2.9.9 Intermediate Presser Test

Functions：

In the test mode, press  to enter intermediate presser test.

:Intermediate Presser Down

:Intermediate Presser Up

 :Shift Intermediate Presser Position

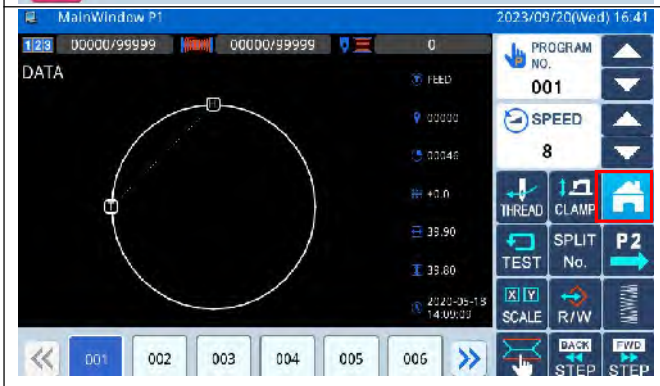
2.9.10 RFID Detection

Function description:

Write: Write the pattern number to the card

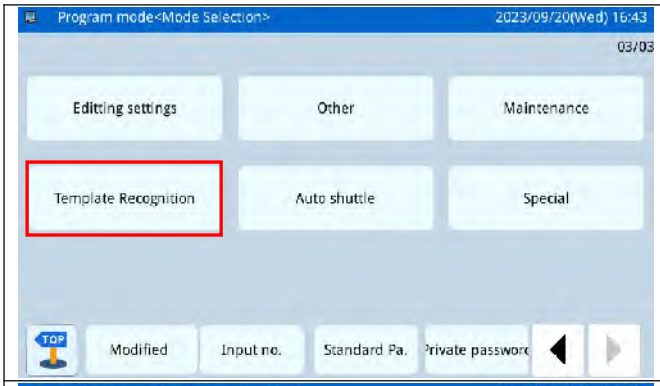
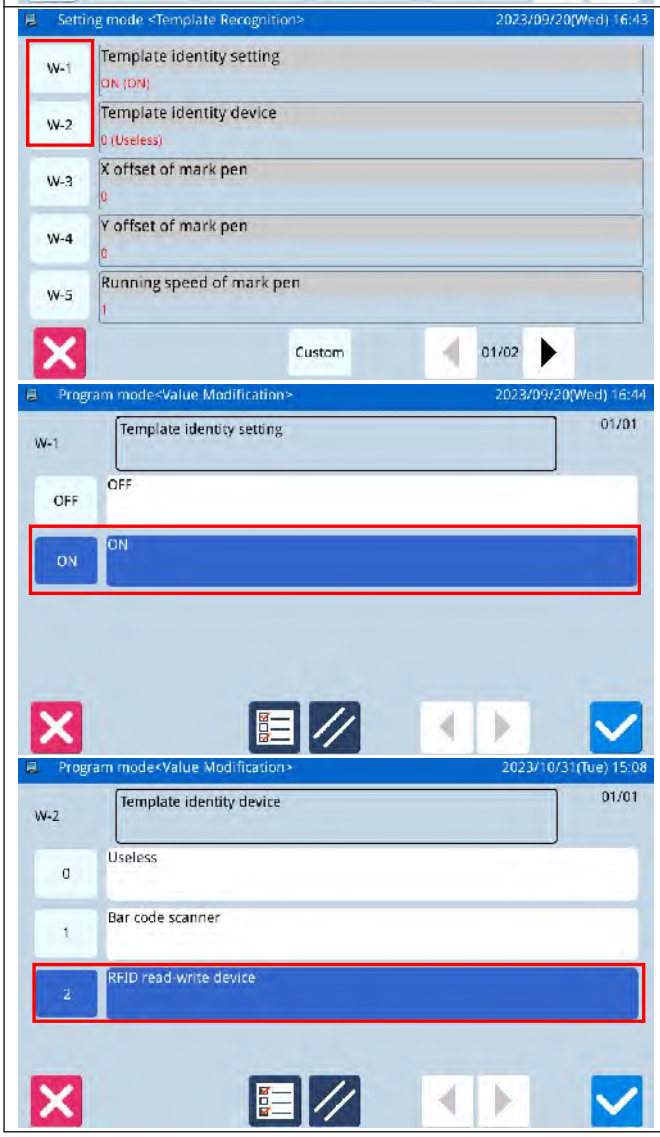
Read: Click Read to identify the pattern number stored in this card.

[Note] : You need to turn on the W-1 parameter before using the RFID detection function.

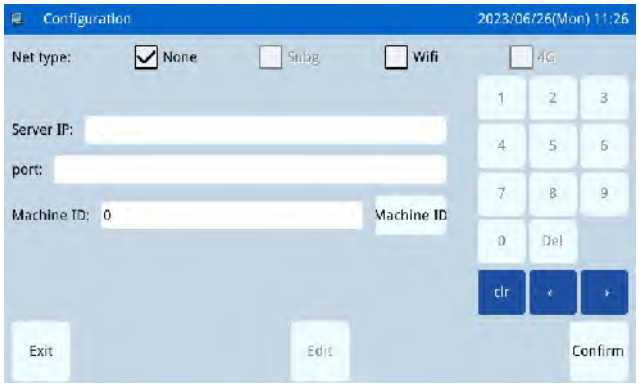


W-1 Parameter Settings:

Click on the main interface  to open the multi-class directory mode, and press the program switch button to enter the setting mode interface.

	In the Setting mode interface, click the button in the lower right corner to turn the page, and select the Template Recognition button on page 03.
	Select W-1 ON the Setting Mode screen to enter the Change value screen. Press ON to enable the template recognition function. Select W-1 in the setting mode interface, and then select ON (Open) to open the template identity function. Then select W-2 and select 2 “RFID read-write device" in the program mode interface.

2.9.11Wireless2



Functions：

In the test mode, press  to enter intermediate presser test.

IP Settings vary depending on the platform used by the customer

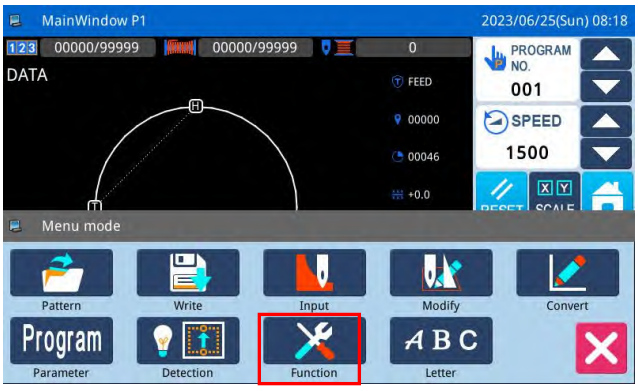
2.9.12Multi IO

Functions：

In the test mode, press  to enter intermediate presser test.

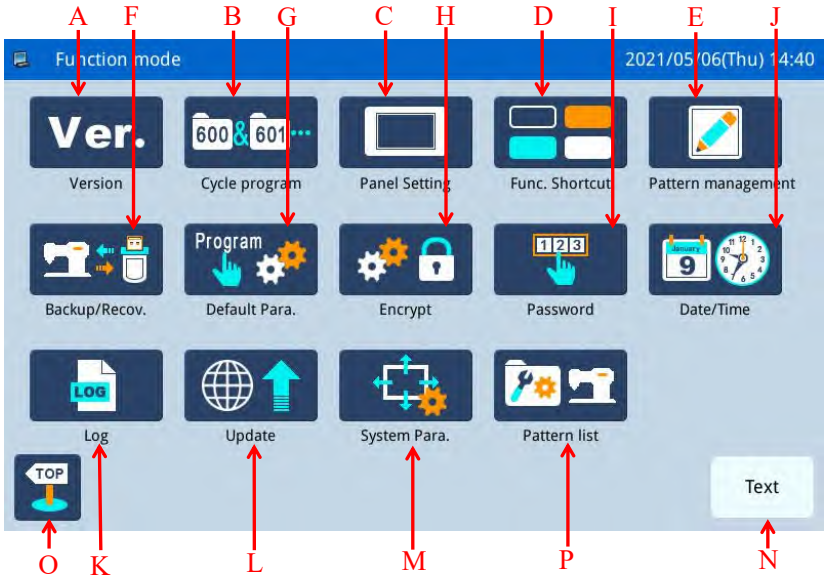
Detecting extended version signals

2.10 Function Setting



In main interface P1 (or P2), press  to activate the catalogue mode, and then press  to enter the Function Setting Mode.

Function setting interface:

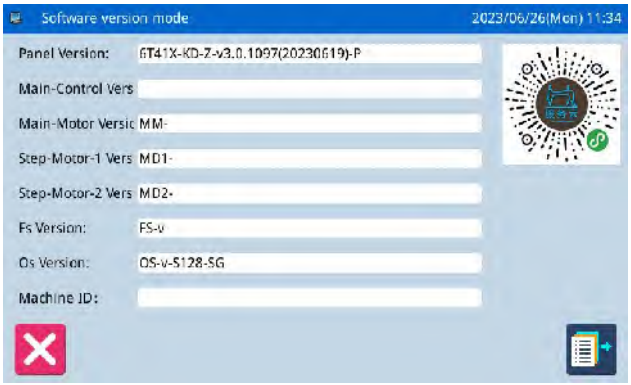


Functions:

No.	Functions	Content
A	Version Inquiry	Inquire the version of system software
B	Pattern Connection	Edit combined pattern
C	Display Setting	Set background light, keyboard lock, lightness and so on
D	Function shortcut key	Users can edit this shortcut key according to their common functions and display it on the main page for convenient operation.
E	Pattern management	Data Transfer:Transfer pattern file between memory and U disk Formatting:Initialize the U disk, memory and pattern number hotkeys. Pattern Transformation in Batch:Change the patterns of non-standard formats into standard formats. **Note: standard format means nsp format.**
F	Back-up Parameter Recovery	Save parameter values into U disk for the parameter recovery in future
G	Default Parameters	Recovery and self-defined read-write function of the default parameter values
H	Parameter Encryption	Set passwords for each operation entrance in parameter mode.
I	Password Mode	Provide periodical password function
J	Time Setting	Set the date and time
K	Log	Alarm Record:Check the alarm statistic information Running Record:Check running information of machine
L	Software Update	Enter software update mode
M	System parameters	System parameters and TD system parameters can be set
N	Shift between Icon and Description	Shift between the icon and description of the hotkeys
O	Quit	Return to main interface

No.	Functions	Content
P	Pattern number list	Pattern number shortcut key editing operation.

2.10.1 Version Inquiry Mode



In function setting interface, press 

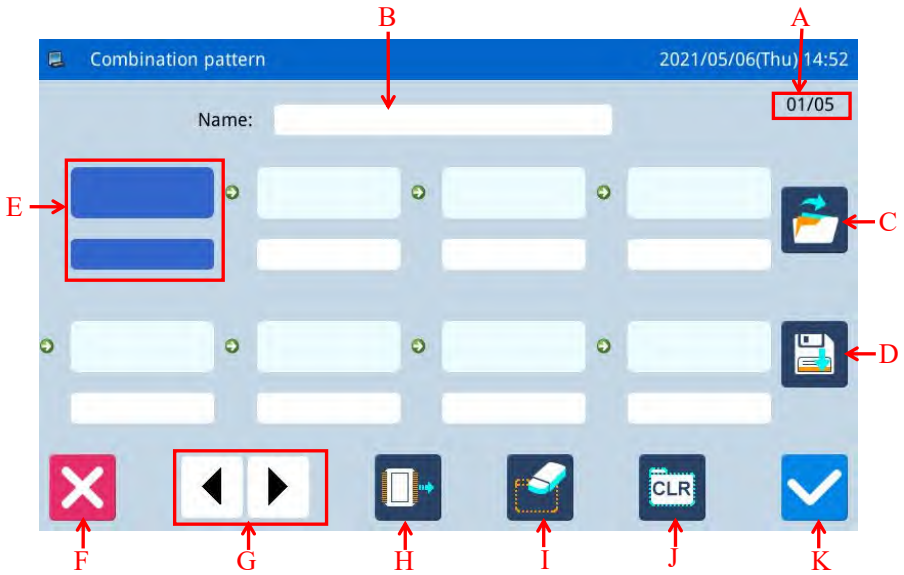
to enter version inquiry mode.

Press  to output the software version to the base catalogue of the U disk with name “version.png”.

2.10.2 Pattern Connection Mode

In function setting interface, press 

to enter Pattern Connection Mode. The pattern connection mode is mainly used to create and edit the combined pattern, which is to perform the combination edition on the basis of the existing patterns. The pattern used in combined pattern is called as sub-pattern.

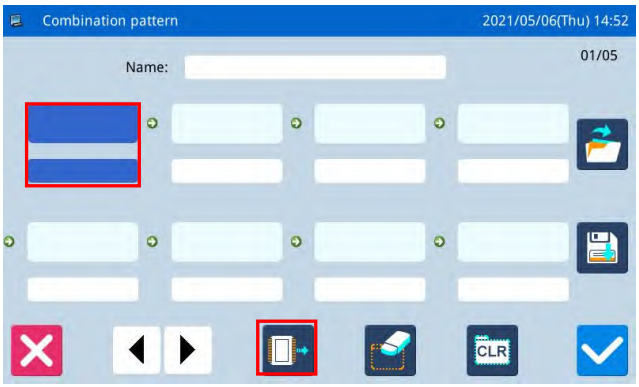


Function:

No.	Description
A	Page
B	Name of Combined Pattern
C	Load Combined Pattern
D	Save Combined Pattern
E	Display Sub-pattern

F	Quit & Return to Previous Interface
G	Page Key
H	Add Pattern from Memory to Combined Pattern
I	Delete Sub-pattern
J	Cancel Combined Pattern
K	Enter

Operation：



1、 Select a Sub-pattern

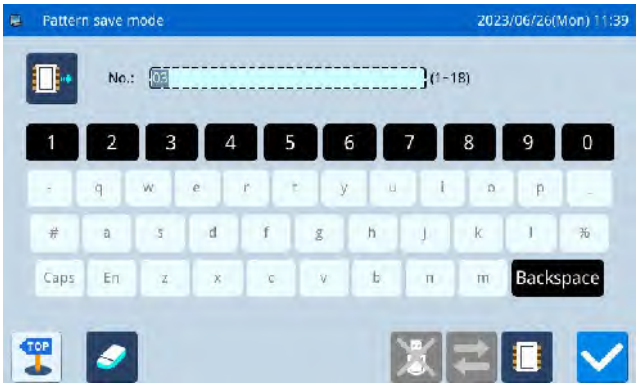
Press  to enter Load Mode and select the pattern to add (select pattern No.612 as an example). Press  to confirm it.

[Note]: Patterns should be added to the combined pattern in order.

2、 Continue Adding

Repeat the above operation to add more sub-patterns (Add patterns No.002)

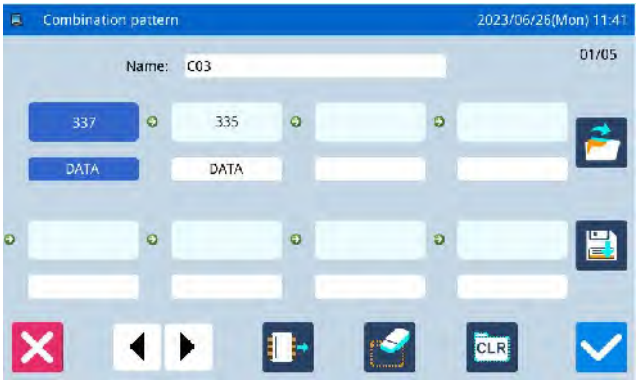
If user wants to delete one of them, please select the number of the sub-pattern and then press  .



3、 Save the Combined Pattern

Press  to enter the mode for saving combined pattern.

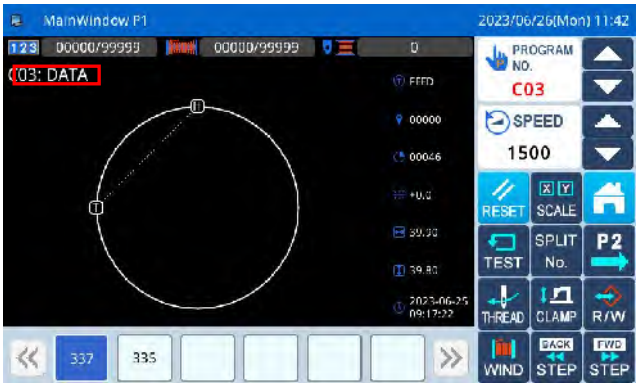
Name the combined pattern and press  to confirm it. For other operations within this interface, please refer to [2.6 Save Pattern].



4、 Return to Main Interface

After finishing edition of the combined pattern, press  to return to main interface.

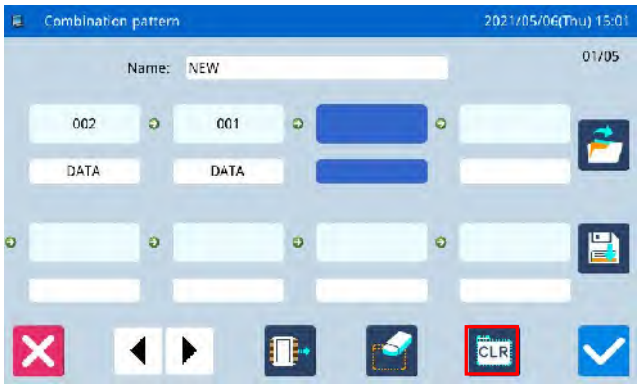
As shown in right figure, there are some differences between the combined pattern sewing interface and the normal pattern sewing interface.



① The name of combined pattern is displayed behind the number and the name of the current sub-pattern will be displayed at the name area.

[Note]: If the combined pattern has no name, nothing will be displayed.

② The original pattern number hotkeys will display the sub-patterns in this combined pattern. Click the sub-pattern to start the sewing from that sub-pattern.



5、 Cancel the Combined Pattern

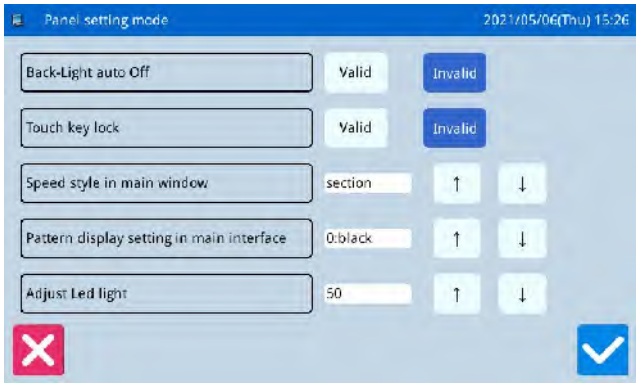
In order to cancel the combined pattern, user has to enter the pattern connection mode again, presses CLR and clicks ✓.

6、 Load Combined Pattern

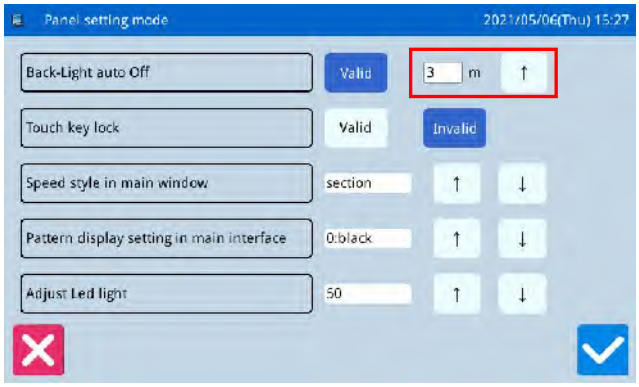
In pattern connection mode, if user presses  when the combined pattern exists, the system will display “Clear Current Combined Pattern”. Clicking  will clear the current combined pattern.

Press  again to enter the interface for loading the combined pattern, where users can select the combined pattern for sewing or editing.

2.10.3 Version Inquiry Mode



In function setting interface, press  to enter display setting mode, where user can perform the settings about the display, operation and so on.



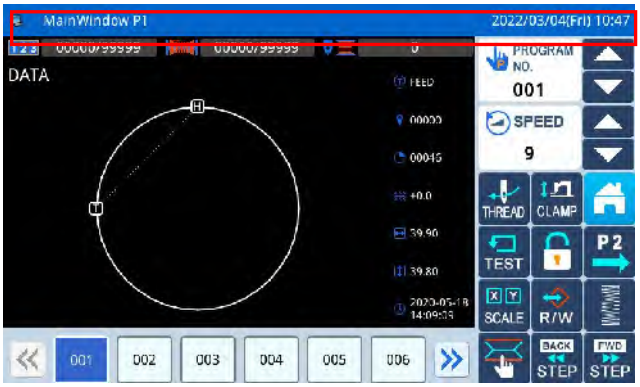
1、Backlight Auto Turn-off

By the set time, the screen backlight will be turned off automatically.

Range：1～9 min

Default Value: Invalid

Releasing Method: if the backlight is off, user can touch any position of the screen to turn it on.



2、 Keyboard Lock

When it is set as “Valid”, all the buttons will turn to grey in display and become useless. Pressing  will directly return to main interface P1.

Default Value: Invalid

Releasing Method: Hold the title bar at main interface P1 for over 5 seconds, until user hear “Bee--m”. After that the lock is released. (After the releasing, this function will be set as Invalid.)

3、 Speed style in main window

[Section] and [speed]

Default Value: [Section]

4、 Pattern display setting in main interface

Range： 0~6 (0:Black, 1: Dark Blue, 2: Red, 3: Green, 4: Blue, 5: Purple, 6: Yellow)

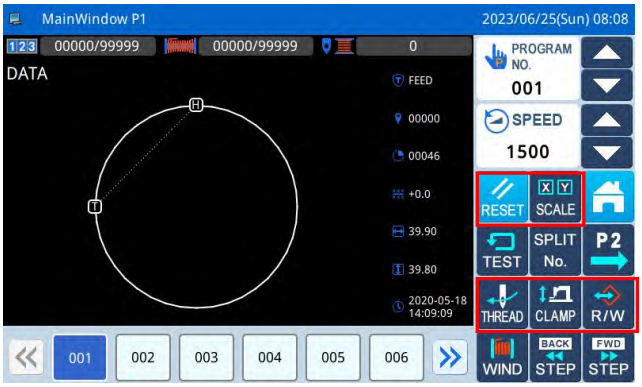
Default Value：0

5、 Adjust Led light

The adjustment range is 0~100.

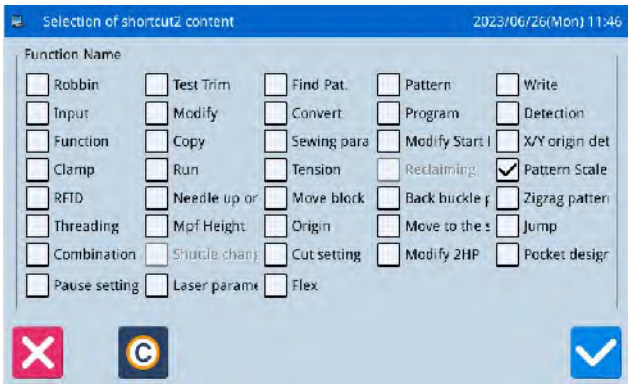
Default Value：50

2.10.4 Hotkey Setting



Hotkey function is used to set the four function keys at the lower right corner according to the user’s habits.

Press  to enter hotkey function setting interface. Setting the common functions of origin, graphic zoom, threading, middle presser foot height, graphic copy, and winding.



Input setting:

Press the shortcut key that needs to be changed to Input, enter the shortcut key setting, select the function and display  , press the confirm key  , save and exit.

2.10.5 Data Transfer Mode

In the function setting interface, press  to open the graph management group. The following functions can be set:

1)Pattern transmission

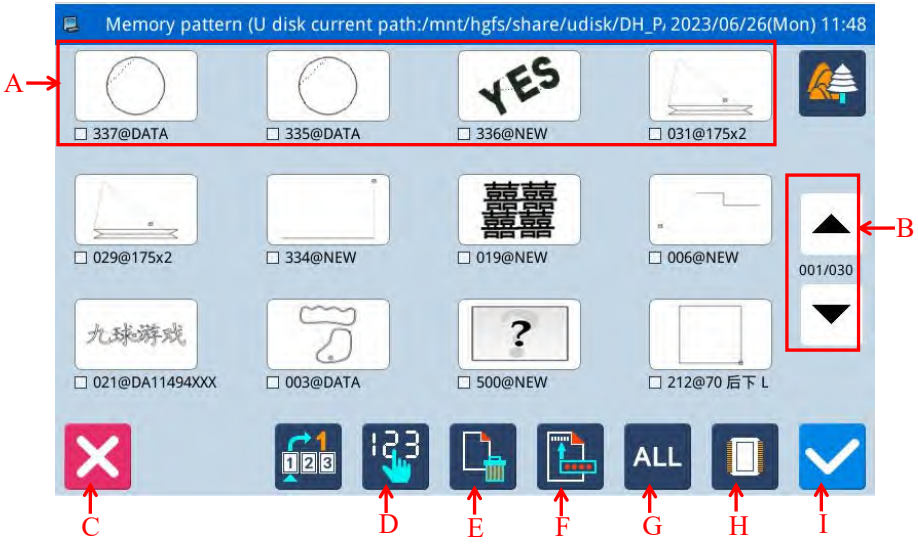
2)Format

3)Batch Convert

2.10.5.1 Data Transfer Mode

In function setting interface, press 

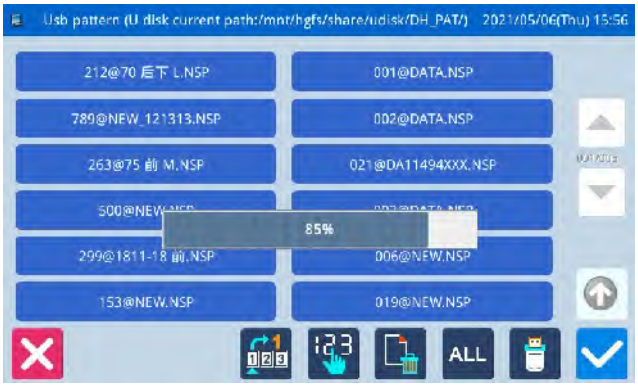
to enter data transfer mode, where two ways are provided: “Memory to U Disk” and “U Disk to Memory”



Functions：

No.	Description
A	Pattern List
B	Turn page query
C	Quit and Return to Upper Interface
D	Arrange the patterns according to the pattern number
E	Delete Pattern
F	Save pattern as
G	Select All Patterns
H	Load pattern from memory or U disk  : Activate the U Disk Load Mode: At this moment, user can not load pattern from memory.  : Activate the Memory Load Mode: At this moment, user cannot load pattern from U disk.
I	Enter

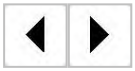
Operation：



1、Copy Mode Selection

The default setting is to copy pattern from memory to U disk, user can press  to change the copy mode.

2、File Selection

Select the pattern for copy from the pattern list (here, we select No.001 and No.002). If the patterns are so many, please use  to turn the page.

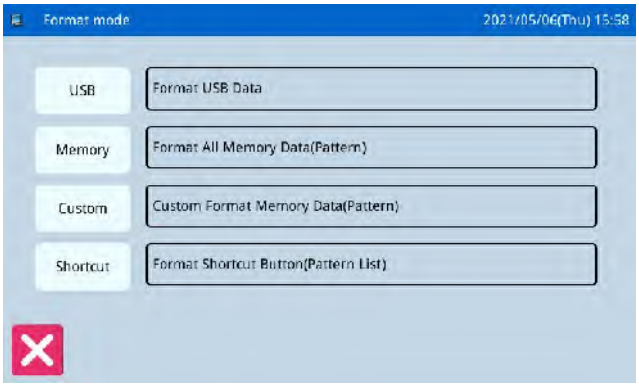
For copying all the patterns, please press  and please press  to delete patterns.

3、Confirm the Copy

After selection, please press  and then the system will display “Copy the Selected Pattern”, where user can press  to perform the operation. If the pattern is copied from memory to U disk, the system will automatically create a catalogue naming “dh_pat” at the base catalogue of U disk and save the pattern under that catalogue.

[Note]: During the copy process, if the memory contains the pattern with the number same to that of the pattern in the U disk, the new pattern will replace the old one.

2.10.5.2 Formatting Mode



In function setting interface, press  to activate formatting mode

There are four formatting methods in this interface: USB formatting, Memory formatting, Self-defined formatting and Pattern number hotkey formatting

1、USB Formatting：

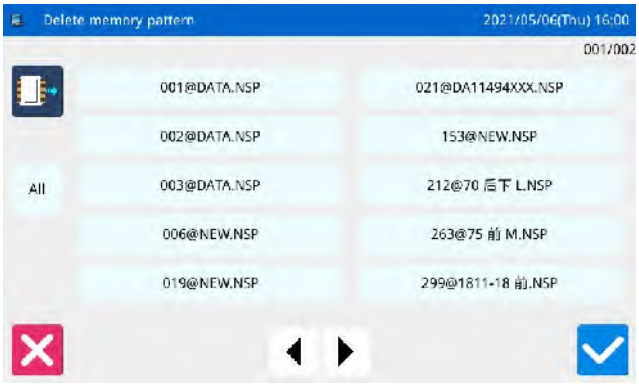
Press “USB” to delete all the patterns in the U disk. So user need back up the data if necessary.

2、Memory Formatting：

Press “Memory” to delete all the patterns in the memory.

[Note]: After the memory formatting, pressing  will have system display “Pattern Not Found in Memory”. Pressing  will automatically load the default patterns.

3、Self-defined Formatting：



Press “Self-defined” to enter the interface for Self-defined formatting

In that interface, user can delete all patterns or selected patterns.

[Note]: The pattern being sewn can not be deleted.

4、Hotkey Formatting：

Pressing “Hotkey” to delete the content of the hotkeys of pattern number.

[Note]: After the hotkey formatting, pressing  will have system display “Pattern List (Hotkey) Is Empty”. Pressing  will automatically load the current pattern number to the hotkey.

2.10.5.3 Pattern Transformation in Batch

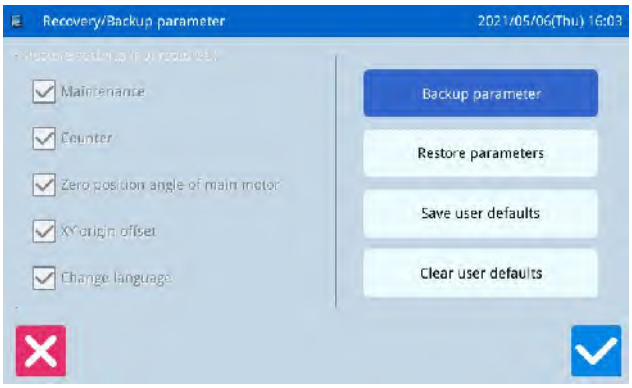
This batch transformation function can enable the continual availability of the patterns after software update.

The default pattern number after transformation can be allocated manually.

The default setting is to select all patterns, and pattern names marked with x are selected.

The original patterns will be deleted. If you want to keep them, please select Keep Original Patterns at the bottom.

2.10.6 Back-up Recovery Mode



In function setting interface, press  to enter back-up recovery mode.

User can save the value of changed parameter into the U disk for the parameter recovery in future.

For details, please refer to [2.8.4 Recovery and Back-up of Parameter]

2.10.7 Default Parameter Mode

In function setting interface, press 

to input the password (the original password is the manufacturer ID). After the input of password, the system will enter Default Parameter Mode.

It is used to recover the default parameters and to save the parameter values for future.

Please refer to [2.8.5 Default Parameter Recovery] for details

2.10.8 Encrypt

Press the parameter encryption key 

in the function setting interface to enter the parameter encryption mode, which is mainly used to encrypt and manage the specified parameters.

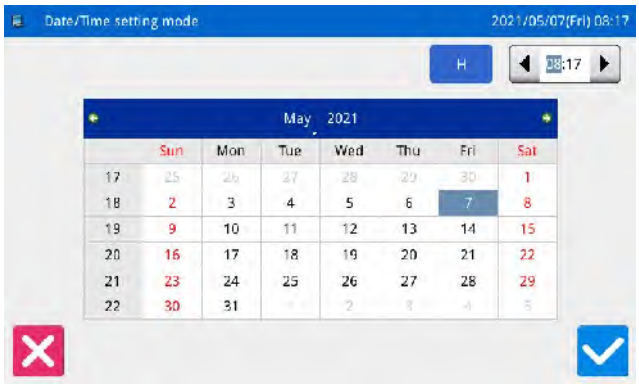
Please refer to [2.8.3 Parameter Encryption] for details.

2.10.9 Password Mode

In function setting interface, press 

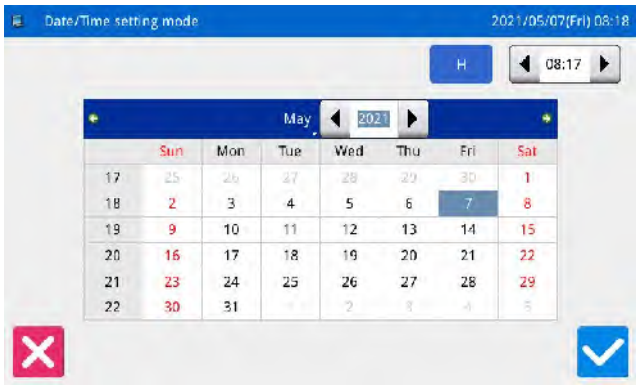
to activate the interface for inputting the user ID. Input the correct manufacturer ID to enter the password management mode, where user can set and manage the periodical password.

2.10.10 Date and Time Setting



In function setting interface, press 

to enter the date and time setting mode.



1、 Method for Setting Date

Click “Year” (Here, it is 2011) to display two arrows to adjust it

Click “Month” (Here, it is June) to display the list of months. User can select the proper month.

After the setting, the display of year and month will be refreshed to the right ones.

User can also use  &  to check the content in calendar.

Click the day to complete the setting.

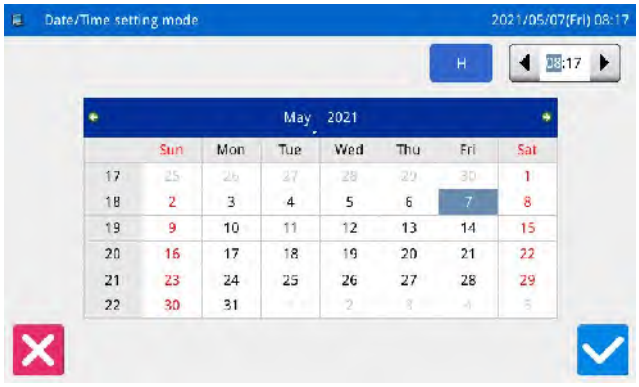
[Note]: User has to set year, month and date to finish the setting. Only setting the year and month will not complete this operation.

2、 Method for Setting Time

In default, user has to set hour first. Press “hour” to shift the setting to minute (Pressing “hour” is to change it to “minute”) and then press the arrows to change the time.

User can also click the display area to shift between hour and minute.

After the setting of date and time, please press  to save it.



3、 Forbid to Change System Time

Once the machine is set with the periodical passwords, the system will deny the change on the system time. After all the passwords are cleared, the system will unlock the setting of the system time.

2.10.11 Alarm Record Mode

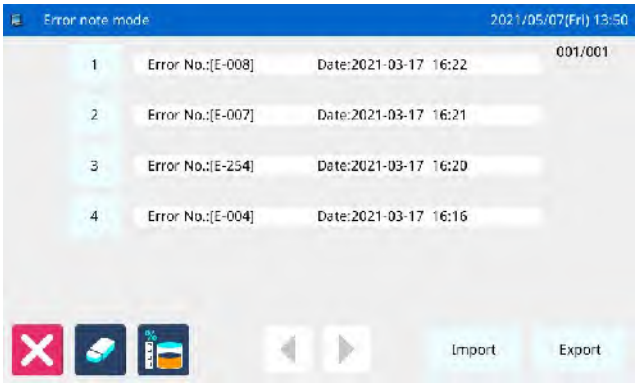
In the function setting interface, press the record key 

to open the record group. The following records can be viewed:

1)Error Note

2)Run Note

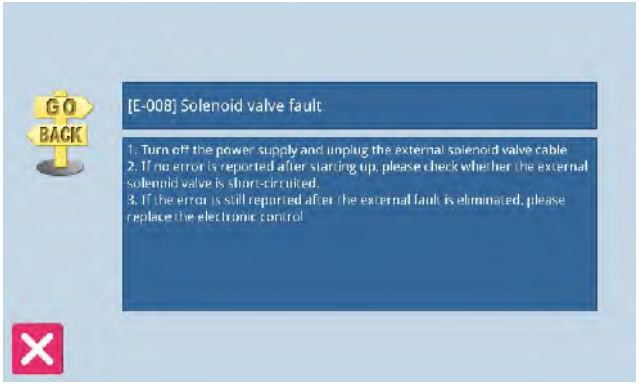
2.10.11.1 Error Note



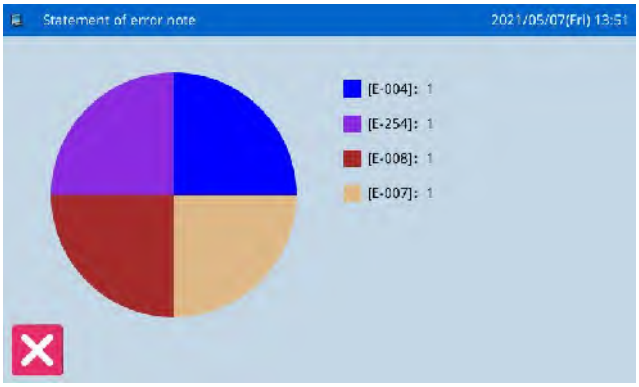
In function setting interface, press 

, then system will ask for the manufacturer ID. After user gives the right ID, the system will enter the alarm record mode

In this mode, the current alarm will be recorded. The smaller number means the later alarm.

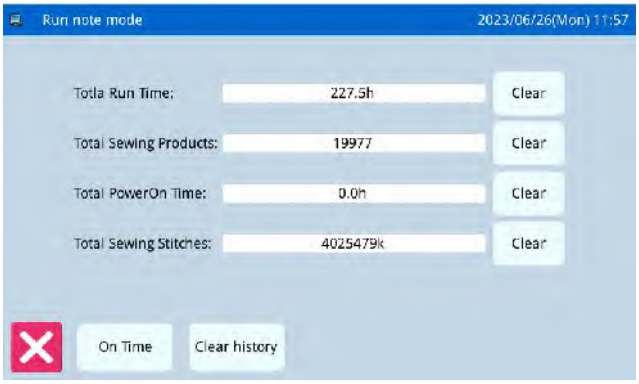


Click each number, and the information of and solution for the error will be displayed.



Press the "data statistics view" key 
to enter the alarm record statistics interface.

2.10.11.2 Run Note



In function setting interface, press  , then system will ask for the manufacturer ID. After user gives the right ID, the system will Enter the running record mode.

① Accumulated Running Time: Record total sewing time of machine.

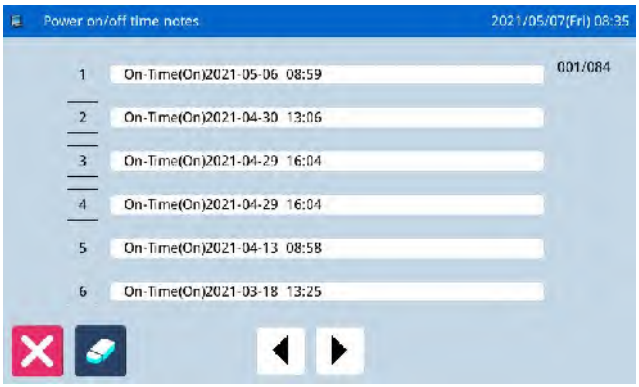
② Accumulated Sewing Pieces: Record the total number of the sewn patterns.

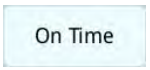
③ Accumulated Power-on Time: Record the total time of power-on

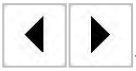
④ Accumulated Stitch Number: Record the total stitch number of the machine.

Additionally, click “Clear” to clear the counting value.

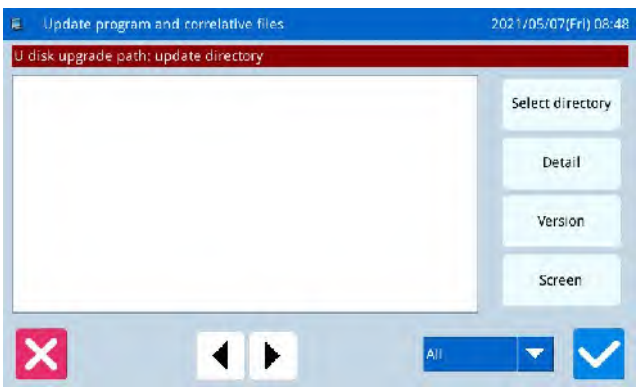
[Note]: If the Accumulated Sewing Pieces is cleared, the system will also clear the Accumulated Counter in the assistant information bar at main interface.



Press [on time]  on the operation record mode interface to view the power on/off time notes..

Use the page turning key  to turn the page, click the clear key  to delete the boot record.

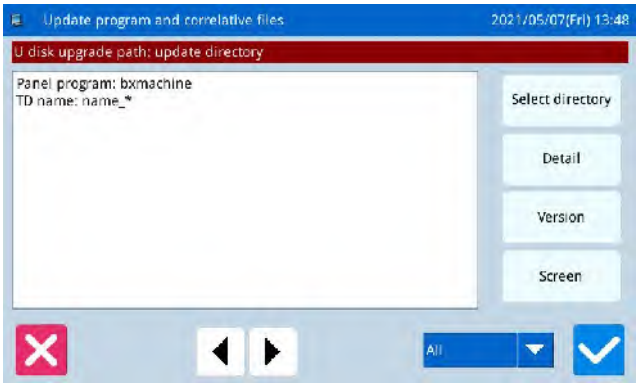
2.10.12 Update Mode



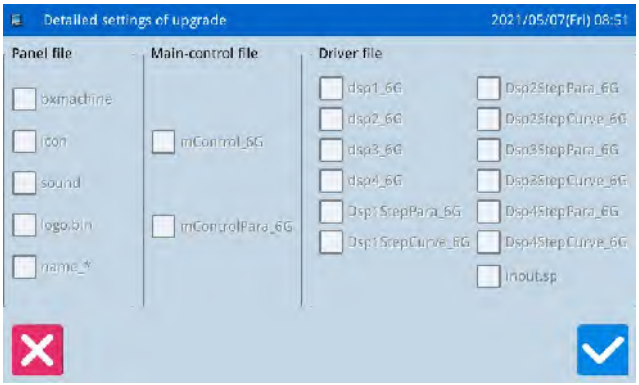
In function setting interface, press  . The system will ask for the manufacturer ID. Input the correct ID to enter the software update mode.

The updating software shall be located in the catalogue “Update” in the U disk.

First click the [select directory] key Select directory to select the directory where you want to upgrade the software.

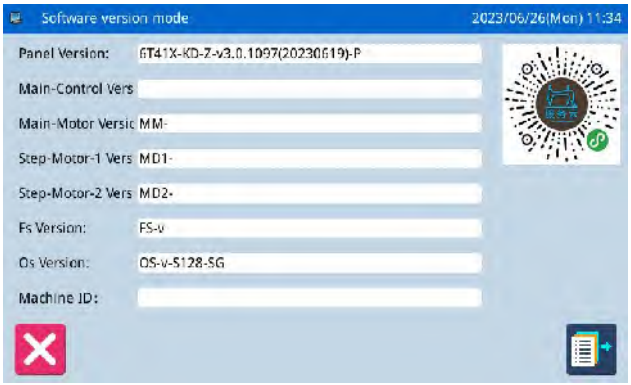


Then select and click the ok key to return to the software upgrade interface and display all the upgradable software information in the directory.



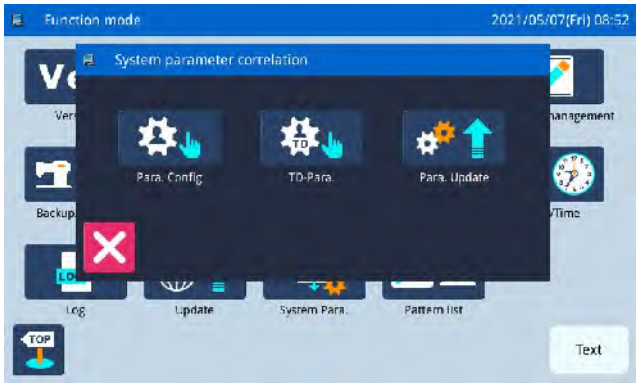
Click the details key Detail to select the details of the software to be upgraded.

Click the "confirm" key to return to the software upgrade interface. Press the "confirm" key again to upgrade the corresponding software.



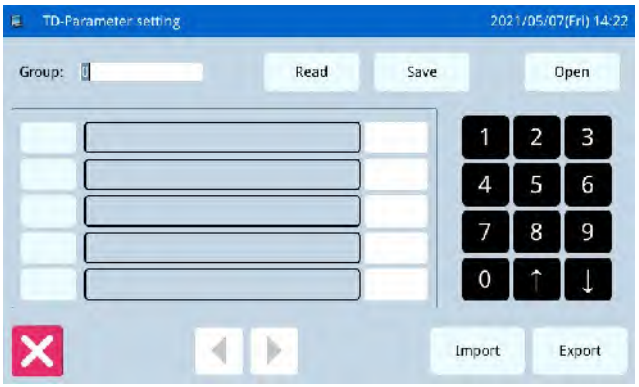
Click the [version] key Version to query the current software version of the panel.

2.10.13 System Para



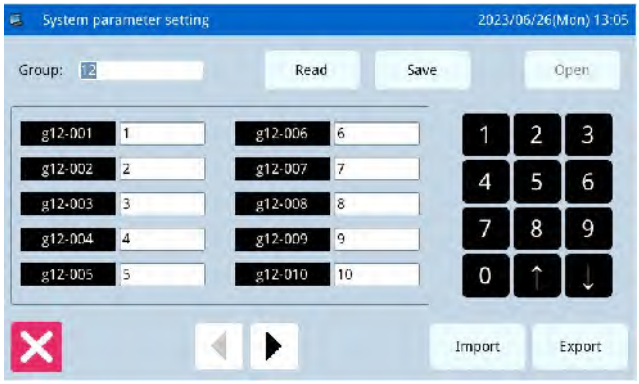
Press the system parameter key 

in the function setting interface to enter the system parameter setting mode.



In the system parameter setting interface, click the [parameter setting] key 

to enter the system parameter setting interface and perform related operations.



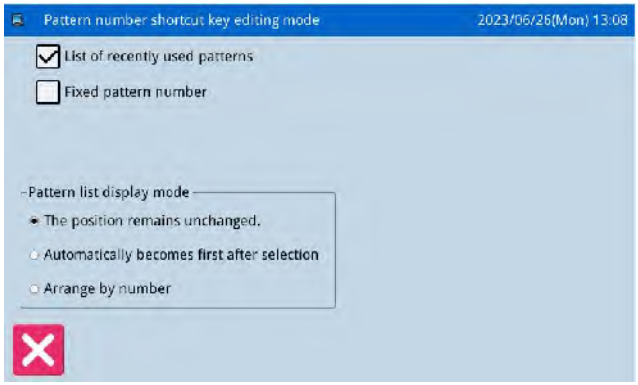
In the system parameter setting interface, click the [TD parameter] key 

to enter the TD parameter setting interface and perform relevant operations.

In the system parameter setting interface, click the [TD parameter] key 

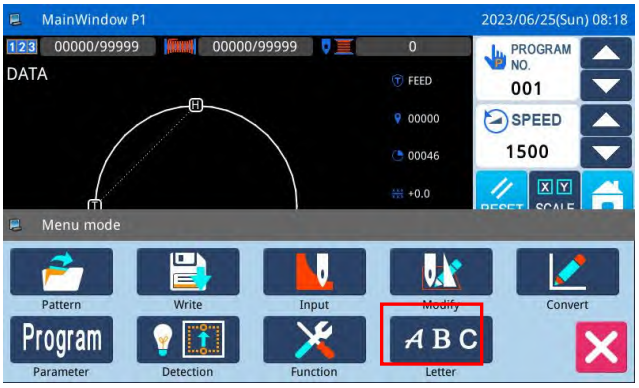
to enter the parameter update setting interface and perform relevant operations.

2.10.14 Pattern list



Function setting interface press the number list  key, you can enter the number shortcut key editing mode.

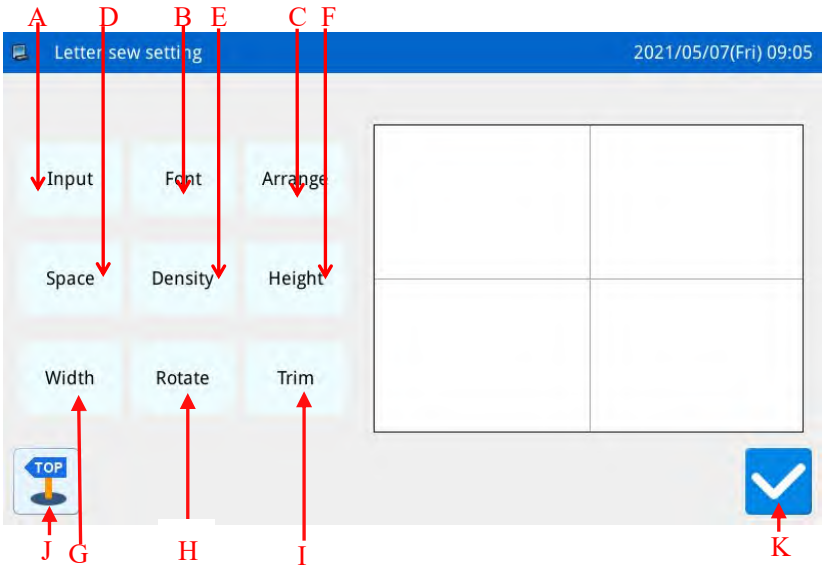
2.11 Letter Sewing Edition



In main interface P1 (or P2), press  to activate the catalogue mode, and then press  to enter letter sewing edition mode.

[Note]: Parameter [Special] -> [Letter Sewing Function Enable] can be used to close the function of letter sewing edition. After that, this icon will not be displayed

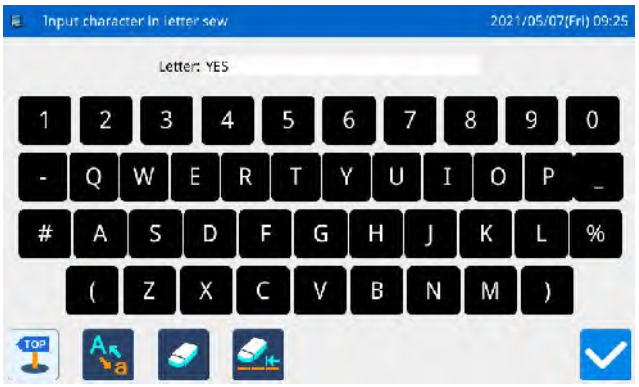
2.11.1 Parameters of Letter Sewing



Functions：

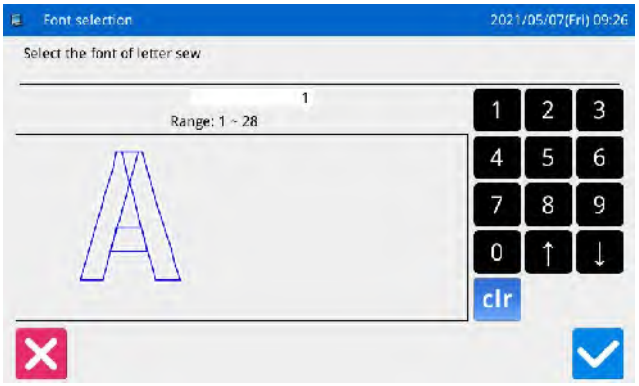
No.	Functions	Content
A	Figure Input	Input figures. At most, 20 figures can be inputted
B	Font Selection	28 fonts are available。
C	Array Method	User can select “Horizontal”, “Vertical”, “Upper Arc” “Down Arc”
D	Letter Pitch	Set the interval between letters
E	Density of Satin	Set the satin density. The larger value means the denser satin stitches
F	Scaling in Height	Scale the height of letter, range: 50~200.
G	Scaling in Width	Scale the width of letter, range: 50~200.
H	Rotation/Follow (Not Follow)	When the array method is linear (vertical or horizontal), the content on the button will be displayed as “Rotation”, which is to set the rotation angle of letter； When the array method is arc (Upper Arc or Down Arc), this button will display “Follow” or “Not Follow”, which is to set whether the letter rotates with the arc.
I	Trim/Not Trim	Set whether to automatically insert thread-trimming code
J	Return	Quit and return to main interface
K	Enter	Confirm operations. And then enter pattern adjustment interface.

Instructions for



1、Figure input

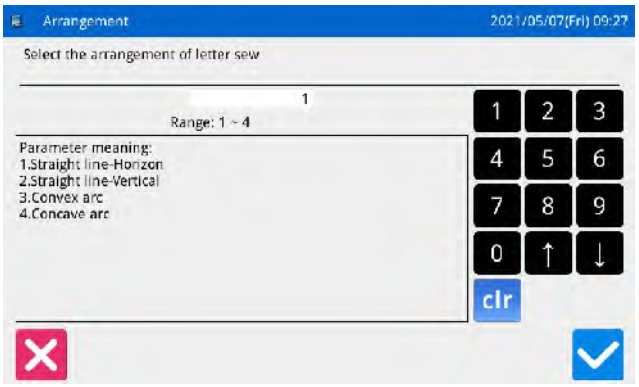
Press “Input” to enter figure input interface, where user have to input at least one figure. 20 figures can be inputted at most. Press to save the input and quit.



2、Font Selection

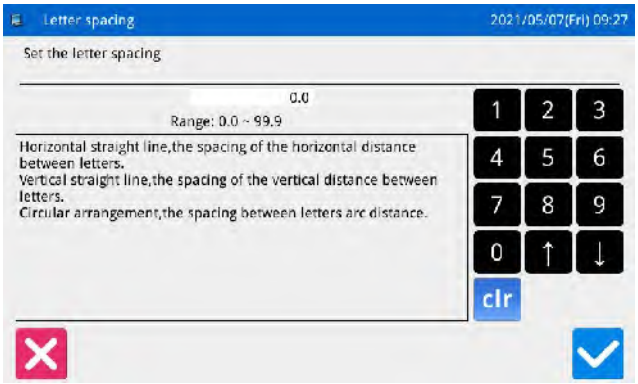
Press “Font” to enter font selection interface, where 28 types of fonts are provided. Input the numbers from 1 to 28 to select the font. Press to save it and quit.

In this interface, the font will be displayed to users.



3、Array Method

Press “Arrange” to enter the interface for setting array method, where user can select horizontal linear, vertical linear, upper arc and down arc. Press to save it and quit.



4、 Figure Pitch

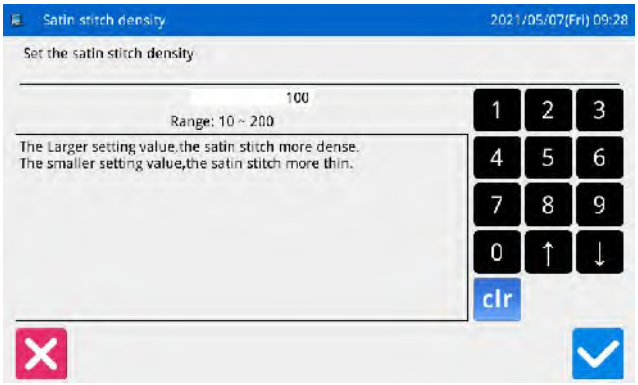
Press “Pitch” to enter the letter pitch setting interface.

In horizontal array, it is to set the horizontal pitch between letters.

In vertical array, it is to set the vertical pitch between letters.

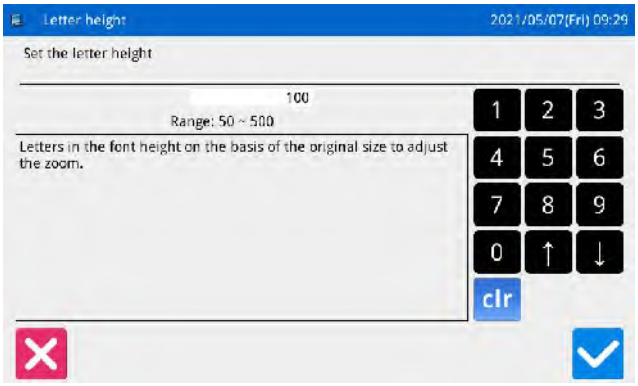
In arc array, it is to set the distance between the letters on arc.

Range: 0~99.9mm。



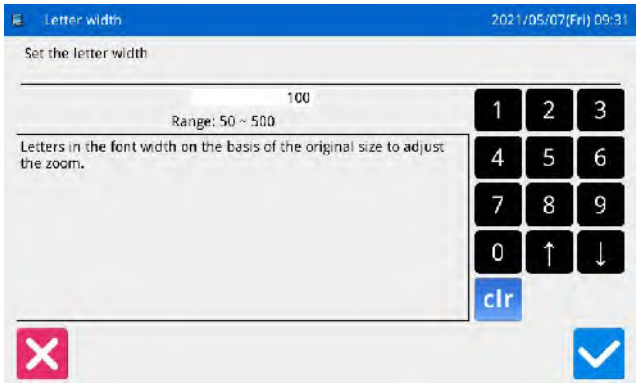
5、 Density of Satin

Press “Density” to enter the interface for setting satin density. The range is among 50~200.



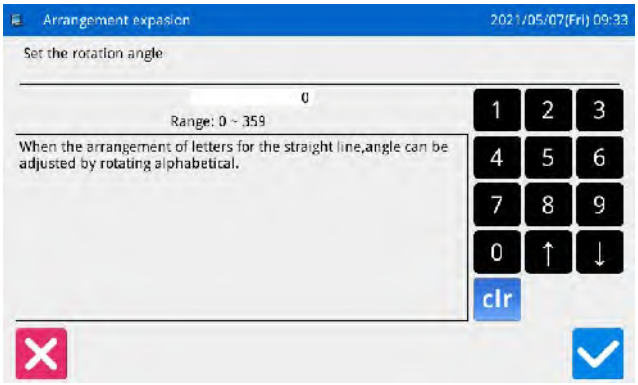
6、 Scaling in Height

Press “Height” to enter the interface for setting letter height， where user can scale the height of letter. Range: 50~200.



7、 Scaling in Width

Press “Width” to enter the interface for setting letter width， where user can scale the width of letter. Range: 50~200.



8、 Rotation Angle Setting

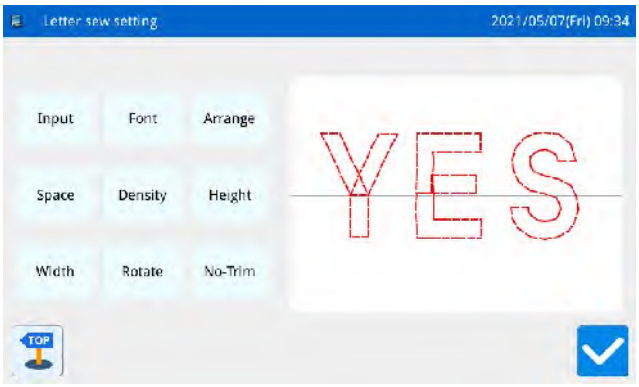
When the array method is set at “Horizontal” or “Vertical”, user can set the rotation angle of the letter. Press the “Rotation” to enter the interface for setting rotation angle.

The rotating direction is counter-clockwise. Range: 0°~359°.

[Note]: When the array method is arc (Upper Arc or Down Arc), this button is to set whether the letter rotates with the arc.

When the array method is arc (Upper Arc or Down Arc), user can set whether the letter rotates with the arc. Press “Follow” to shift it to “Not Follow”, vice versa.

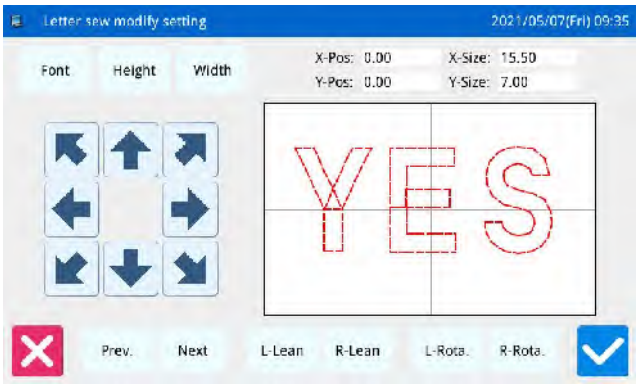
[Note]: when the array method is “Horizontal” or “Vertical”, this button is to set the rotating angle.



9、 Trim/No Trim

In default setting, the system will add auto-trimming, which is to add trimming code at the end of sewing, joint of empty feeding (or sewing).

Press “Trim” to change the content on button and cancel the function for automatically adding trimming functions.

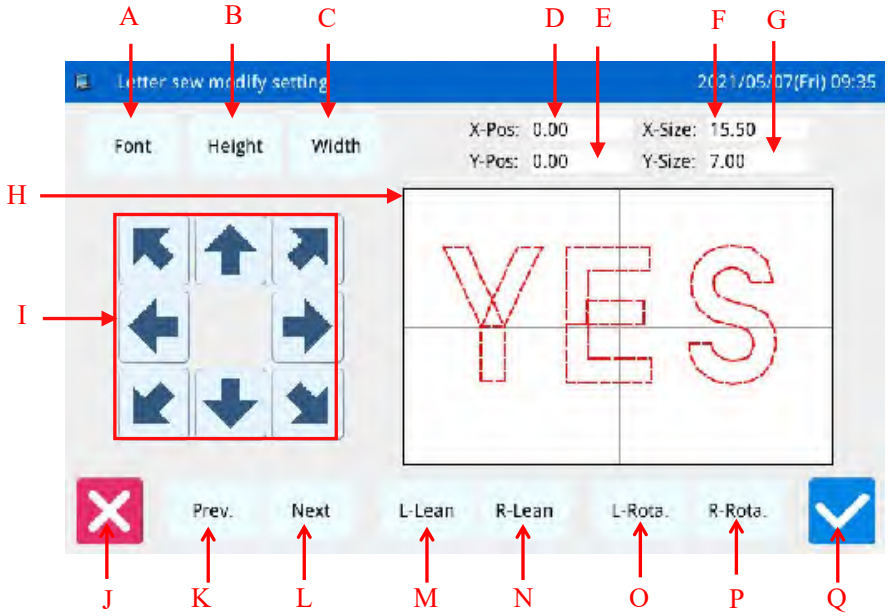


10、 Confirm the Pattern

Set the letter sewing pattern for generation. Press  to enter the interface for adjusting the letter sewing pattern.

2.11.2 Adjustment of Letter Sewing Pattern

In the interface for setting parameters of the letter sewing, user can press  to enter the interface for adjusting the letter sewing pattern. In this interface, user can have the further adjustment on the pattern.

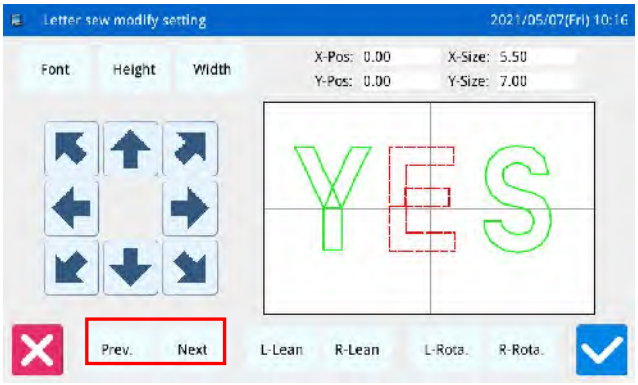


Functions:

No.	Functions	Content
A	Font Selection	Change the font of selected letter. The setting method is the same as that in Parameter Setting.
B	Scale in Height	Scale the height of the selected letter. The setting method is the same as that in Parameter Setting.
C	Scale in Width	Scale the width of the selected letter. The setting method is the same as that in Parameter Setting.
D	X Position	Display the X coordinate of center point of the selected letter
E	Y Position	Display the Y coordinate of center point of the selected letter
F	X Size	Display the width of the selected letter
G	Y Size	Display the height of the selected letter
H	Pattern Display	Display the current pattern for letter sewing. The selected letters are displayed in red; the unselected letter is displayed in green.
I	Direction Key	Adjust the position of the selected letter.
J	Esc	Return to the previous interface
K	Previous Letter (from right to left)	Select the letter for adjustment from right to left. The selected figure is displayed in red. When the icon still goes to left at selecting the last letter, the entire letters will be selected.
L	Next Letter (from left to right)	Select the letter for adjustment from left to right. The selected figure is displayed in red. When the icon still goes to right at selecting the last letter, the entire letters will be selected.
M	Left Tilt/Radian Down	When the array method is horizontal array or the vertical array, this button will display “Left Tilt”. Pressing this button will rotate the entire pattern counterclockwise in the center of origin When the array method is arc, this button will display “Radian Down”. Pressing

No.	Functions	Content
		this button will reduce the radian of entire pattern. [Note] This operation is for the entire pattern.
N	Right Tilt/Radian Up	When the array method is horizontal array or the vertical array, this button will display “Right Tilt”. Pressing this button will rotate the entire pattern clockwise in the center of origin When the array method is arc, this button will display “Radian Up”. Pressing this button will increase the radian of entire pattern. [Note] This operation is for the entire pattern.
O	Left Rotation	Adjust the rotating angle of the selected letter counterclockwise. The rotation center is the center of the letter
P	Right Rotation	Adjust the rotating angle of the selected letter clockwise. The rotation center is the center of the letter
Q	Enter	Press it to Enter the pattern save interface

Example：



1、 Select Single Letter for Adjustment

Press “Previous Letter” or “Next Letter” to select the single letter for adjustment. The selected letter is displayed in red, while the unselected are displayed in green

2、 Letter Position Adjustment

Press direction keys to adjust the position of the selected letter. User can see the coordinates from “X Position” and “Y Position”

With the same operations, user can adjust the position of other letters.

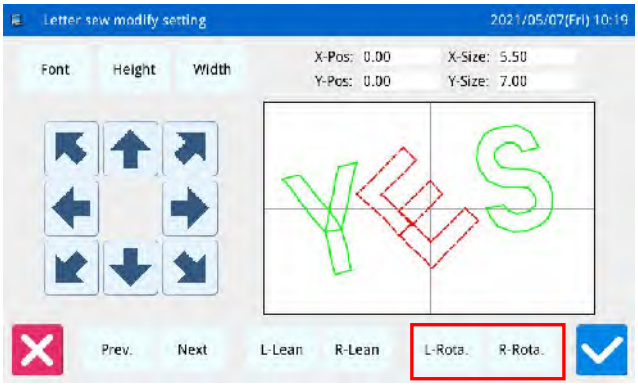
3、 Adjust the Rotating Angle of Entire Pattern

Press “Left Tilt” or “Right Tilt” to adjust the rotating angle of the entire pattern

“Left Tilt”: Counter-clockwise Rotation

“Right Tilt”: Clockwise Rotation

[Note]: When the array method is arc, these buttons will turn to “Radian Up”/ “Radian Down”, which are to adjust the radian of the entire pattern



4、 Rotation of Single Letter

Select a letter and then press “Left Rotation” or “Right Rotation” to adjust the rotating angle of the selected letter

[Note] When adjusting the rotating angle, user had better adjust the rotating angle of the entire pattern at first. If user adjust the rotating angle of the single letter at first, the adjustment will be canceled when user rotates the entire pattern.

5、 Save Pattern

After the adjustment, press  to enter interface for saving patterns.

Input name and number, and then press  . The system will display “Letter Sewing Pattern Saved Successfully”. (For other operations, please refer to [2.6 Save Pattern].)

[Note] After the successful saving, the letter sewing pattern will not turn to current pattern automatically. User has to enter the pattern loading interface to select it.

3 Appendix 1

3.1 Warning Information List

Number	Name of Malfunction	Solution
E-001	Pedal not at centre position	Please adjust pedal position
E-002	Machine is in emergency stop	Check the condition of emergency switch.Turn and release the emergency button. If the screen keep displaying this hint, please check in the following way: 1、Check whether the emergency stop switch is pressed 2、Check whether the emergency stop switch cable is in good contact; 3、If there is no problem with the switch cable, please replace the electric control;
E-003	The nose tip over	1Turn off the power and check whether the nose is overturned 2Check whether the switch position of the machine head is normal and whether the cable is in good contact; 3Turn off the nose tip switch parameters or replace the electric control
E-008	Solenoid valve failure	1.Power off and unplug the external solenoid valve cable. 2.If no more error is reported, please check whether the external solenoid valve is short circuit. 3.Error still reported after troubleshooting the external fault, please replace the electric control.
E-010	Fan or electromagnet failure	1.Turn off the power and unplug the external electromagnet. 2.If no more errors are reported, please check whether the external electromagnet is damaged. 3.Error still reported after troubleshooting the external fault, please replace the electric control.
E-013	Spindle encoder is malfunctioning or not connected	Turn off the power and check whether the spindle encoder is connected properly.
E-014	Spindle motor runs abnormally	1.Turn off the power to check whether the machine is stuck, to ensure that the machine can run smoothly without dead spots. 2.Replace spindle motor. 3.Replace the electric control box.
E-015	Exceeds sewing area	Check if the pattern is out of the range of the panel Settings
E-017	Disconnection detection anomaly	1.Check whether the position of broken wire detection equipment is correct; 2.Check whether the cable is normally connected; 3.Appropriately increase the number of broken wire detection needles;

		4.If still not solved, you can choose to turn off the broken line detection function or replace the electric control;
E-019	Emergency switch is not at the right position	1.Check whether the emergency stop switch is pressed; 2.Check whether the emergency stop switch cable is in good contact; 3.If there is no problem with the switch cable, please replace the electric control. Note: If the emergency stop switch is pressed and returns to normal, please change the type of emergency stop switch.
E-025	X origin detection abnormal	1.Turn off the power. First of all, make sure that the machine can move normally without sticking points, X sensor and baffle can work normally, and the cable connection between X motor and sensor is intact. 2.Switch on the machine and enter the signal detection interface to detect X Sensor. If the signal does not jump, replace the sensor and electric control in turn for testing. 3.If the signal can jump normally, enter the XY detection interface to detect the action of X motor; 4If X motor can work normally but the steering direction is opposite, please change the steering parameters of X motor; 5If the X motor cannot work normally, replace the X motor and electric control box in turn for testing.
E-026	Y origin detection abnormal	1.Turn off the power. First of all, make sure that the machine can move normally without sticking points, Y inductor and baffle can work normally, and Y motor and inductor cable are well connected; 2.Switch on the machine and enter the signal detection interface to detect Y sensor. If the signal does not jump, replace the sensor and electric control in turn for testing. 3.If the signal can jump normally, enter the XY detection interface to detect the action of Y motor; 4.If the Y motor can work normally but the steering direction is opposite, please change the steering parameters of Y motor; 5.If Y motor cannot work normally, replace Y motor and electric control box in turn for testing;
E-029	Intermediate presser origin detection abnormal	1.First of all, make sure that the machine can move normally without sticking points, the sensor and the baffle of the middle pressor foot can work normally, and the motor of the middle pressor foot and the sensor cable are intact. 2.Start the machine and enter the signal detection interface to detect the sensor of medium pressure foot. If the signal does not jump, replace the sensor and electric control in turn for testing; 3.If the signal can jump normally, enter the middle presser foot detection interface to detect the motor action of the middle presser foot; 4.If the motor of the middle presser foot can work normally but the steering direction is opposite, please change the steering parameters

		of the motor of the middle presser foot; 5. If the motor of medium pressor foot cannot work normally, replace the motor of medium pressor foot and electric control box in turn for testing;
E-030	Master and step communication error	1.Please check whether the program version is correct; 2.Re-upgrade the master control and step procedure to check whether it is normal; 3.Replace the electric control;
E-034	Spindle drive short circuit	1.Turn off the power and check whether the spindle motor is damaged; 2.If the motor is not damaged, replace the electric control box;
E-037	Motor is blocked 1	Please turn off power. 1、Due to the wrong location of the main shaft angle, the trimmer is jammed on the needle when cutting the thread, thus causes the main shaft to be blocked. Solution: Relocate the main shaft angle 2、The needle rod is jammed on the intermediate presser at moving, which causes the blockage of the main shaft. Solution: check the action of the intermediate presser and the connection between the air valve and the solenoid valve. 3、The trimmer can't cut the thread due to lacking of strength, which causes the blockage of the main shaft. Solution: adjust the main shaft parameter and increase the strength of trimming. 4、The mechanism has dead point, so the main shaft is blocked. Solution: adjust the mechanism; 5、The encoder at the main shaft motor has problem, which responses the wrong signal, thus causes the blockage of the motor. Solution: replace the main shaft motor
E-039	Motor over speed	Please turn off power. Spindle motor encoder has a problem, the signal feedback is wrong.
E-045	Presser not down	Step the pedal
E-046	Not at origin cannot operate	Press key to return to origin
E-047	Spindle motor runs abnormally	1.Turn off the power, check whether the machine is stuck, to ensure that the machine can run smoothly without dead point. 2.Replace the spindle motor; 3.Replace the electric control box；
E-050	X motor over current	1.Turn off the power and check whether the connector of X motor is firmly connected and whether the cable is intact and without damage; 2.Replace X motor; 3.Replace the electric control.
E-051	Y motor over current	1.Turn off the power and check whether the connector of Y motor is firmly connected and whether the cable is intact and without damage; 2.Replace Y motor; 3.Replace the electric control.

E-054	X Motor is running abnormally	1.Turn off the power and make sure that no sticking point can be moved normally in the X direction of the machine. 2.Ensure that the cable connection of X motor is correct and firm without damage; 3Replace X motor; 4.Replace the electric control.
E-055	Y Motor is running abnormally	1.Turn off the power and make sure that no sticking point can be moved normally in the Y direction of the machine. 2.Ensure that the cable connection of Y motor is correct and firm without damage; 3Replace Y motor; 4.Replace the electric control.
E-059	Master and step communication error 1	1.Verify that the software version is correct 2.Re-import system parameters 3.Replace the electric control.
E-060	Master and step communication error 2	1.Initialization parameter 2.Replace the electric control.
E-061	Servo communication error 3	Servo communication error 3
E-081	The bottom line is insufficient	Press the confirm button to restore after replacing the bottom line
E-086	Write drive program failed	Please restart the system and upgrade again.
E-091	Unrecognized template	Please replace the template
E-093	Medium presser foot motor over current	1、Turn off the power and check whether the motor connector of the middle presser foot is firmly connected and whether the cable is intact and without damage 2、Replace motor of medium presser foot 3、Replace the electric control
E-094	Over current of wire cutting motor	Please turn off the power.
E-095	Abnormal operation of medium presser foot motor	1.Turn off the power and confirm that the mechanical parts of the middle presser foot can move smoothly without sticking points; 2.Ensure that the motor cable of the middle presser foot is connected correctly and firmly without damage; 3.Replace motor of medium presser foot 4.Replace the electric control
E-096	Abnormal wire cutting motor	Please turn off power.
E-097	The card reader module is abnormal	Please power off and check whether the card reader module is damaged or not connected
E-099	Control box does not match operation head type	Please replace the panel.
E-102	Air pressure is insufficient	Please check the air valve
E-111	The bottom line is insufficient	Press the OK button to cancel the alarm.

E-137	The automatic shuttle changeover module failed to connect	1.Please check whether the power supply of the automatic shuttle changing module is normal. 2.Please shut down and check whether the related lines are correct and reliable, and whether the connecting lines are damaged. 3.Please check whether the program version of the automatic shuttle changing module is normal.
E-151	Laser offset out of stitching range	Adjust the laser or brush offset parameters
E-152	The extension module is not connected	Shut down the system and check the connection and power supply between the extension module and the system
E-154	skip pin is faulty	
E-155	broken pin faulty	
E-254	Undefined error	An undefined error occurred in communication

3.2 Hint Information List

No.	Name	Content of Sub-information
M-001	Up counter reaches set value	Press Enter
M-002	Down counter reaches set value	Press Enter
M-003	Not at origin, cannot operate	Return to origin firstly
M-004	Pattern data not exist	Please reload or input again
M-005	Set value is too large	Please input value within valid range
M-006	Set value is too small	Please input value within valid range
M-007	Please press “Return to Origin”	
M-008	Save parameter abnormal	Press Enter to restore the default values
M-009	Cannot find pattern in memory	Press Enter to load the default patterns
M-010	Memory full	Please delete the idle sewing data
M-011	Delete pattern data from memory?	Press OK to delete the operation and cancel to exit the current operation.
M-012	Replace pattern data in memory?	Press OK to delete the operation and cancel to exit the current operation.
M-013	Can not delete pattern data.	The selected sewing data is being used
M-014	Format memory?	Press OK to delete the operation and cancel to exit the current operation. All memory pattern data will be deleted after formatting!
M-015	Communication error	Abnormal event occurs in the communication between the operation head and the control box.
M-016	Beyond sewing range	Make sure pattern data is in sewing range
M-017	Fail to load letter sewing file	
M-018	Operation head does not match the type of control box	Please check the model and the software version
M-019	Wrong pattern number	Please input the right pattern number
M-020	Beyond max stitch interval	

M-021	Wrong password	Please input password again
M-022	Hardware clock error	The hardware clock has problem, please contact manufacturer for repair.
M-023	Stitch number beyond range	Please enter [Operation Settings]->[LCD Screen], select 'Large Sticker Count Pattern Support' parameter set to ON
M-024	Inputted stitch interval is too low	Please input value within valid range
M-025	Inputted stitch interval is too low	Please input value within valid range
M-026	Offset origin existed	User can only input one offset origin.
M-027	Please press Return to Origin	
M-028	Copy the pointed pattern?	Do you want to overwrite the original graph? Yes: Enter, no: X
M-029	Restore to default setting?	Press OK to delete the operation and cancel to exit the current operation.
M-030	USB is pulled out	U Disk Is Pulled Out!
M-031	Cannot find pattern data in U disk	
M-032	At least input one letter	At making pattern of letter sewing, user has to input at least one letter
M-033	No alarm record	
M-034	Replace needle	Reach set value for needle replacement, please replace needle!
M-035	Replace oil	Reach set value for oil replacement, please replace oil!
M-036	Clean machine	Reach set value for cleaning machine, please clean machine!
M-037	Different data format	Please confirm the data format
M-038	Cannot create curve	Please input again according to the standards of curve input.
M-039	Cannot insert trimming at current position	Please add trimming behind sewing data
M-040	Cannot add same function code in one position	
M-041	Cannot insert offset origin at current position	Please add offset origin after feeding
M-042	Cannot create arc or circle at the inputted point	Please input again
M-043	Cannot create overlapped sewing data	Please add overlapped sewing after close shape
M-044	Cannot insert trimming after down pause	
M-045	Cannot insert down pause before trimming	
M-046	Select wrong position	
M-047	Cannot scale	
M-048	Wrong pattern data	
M-049	Create arc?	

M-050	Create circle?	
M-051	Create curve?	
M-052	Create polygon?	
M-053	Presser is not down	Please step pedal
M-054	Wrong User ID	Please input again
M-055	Cannot change system time	The periodical password is set. Can not change system time.
M-056	Fail to save password file	
M-057	Fail to load password file	
M-058	Password saved successfully	
M-059	Fail to clear all passwords	Cannot delete password file
M-060	Fail to clear password	After the password is cleared, the file input becomes abnormal
M-061	Password file is deleted without authorization	Periodical password is deleted without authorization, please turn off machine
M-062	User ID file damage	
M-063	Input pattern name	
M-064	Please clear current combination data	Press “CLR” to delete current combination data
M-065	Empty input invalid	Please enter your password.
M-066	Password not match	Please re-enter the current password
M-067	New password is different.	Please re-enter a new password and reconfirm
M-068	Touching panel correction successful	Correction is successful. Please turn off power to restart.
M-069	Clear alarm records?	Yes: Enter No: X
M-070	Delete the selected file?	Yes: Enter No: X
M-071	Copy all patterns	Cover the original patterns? Yes: Enter No: X
M-072	Fail to copy file	Please check the space in memory
M-073	Fail to copy file	Please check if the USB disk is pulled out!
M-074	Fail to open file	Fail to open file
M-075	Format not match	Formats don’t match, current load denied
M-076	Please create catalogue and file	Please create catalogue bakParam in U disk. Name the back-up file as backup.param and copy it to bakParam catalogue！
M-077	File I/O error	File I/O error
M-078	Please select file	Select the file for input/ output
M-079	File not exist	Cannot find the corresponding file
M-080	Not input move amount	Please input move amount
M-081	Determine to perform the current action?	Are you sure? Yes: Enter, no: X
M-082	Clear accumulated running time?	Are you sure? Yes: Enter, no: X
M-083	Clear accumulated sewing pieces?	Are you sure? Yes: Enter, no: X
M-084	Clear accumulated power-on time?	Are you sure? Yes: Enter, no: X

M-085	Clear accumulated stitch numbers?	Are you sure? Yes: Enter, no: X
M-086	Periodical passwords can't be same to super password	Please input password again
M-087	Cannot change up counter (NUP)	At change, please turn off setting (NUP)
M-088	Cannot change down counter (NDP)	At change, please turn off setting (NUP)
M-089	Pattern list (hotkey) is empty	If the pattern list is empty, the system will automatically input the current pattern to list
M-090	Not select update item	Please select item for updating. At least select one item
M-091	Some selected update items don't exist.	The item not existing will be cancelled after return. For updating the rest items, please confirm again
M-092	Update successful	Update is successful, please restart machine.
M-093	Format U Disk?	Press Enter to perform formatting operation. Press Esc to quit current operation. After formatting, all pattern files will be deleted.
	Update successful	Update is successful, please restart machine.
M-094	Successful	Current operation is successful!
M-095	Failed	Current operation is failed!
M-096	Format pattern list (hotkey)?	Press Enter to perform formatting operation. Press Esc to quit current operation
M-097	Cover the pattern with same name in U disk?	Press Enter to cover files. Press Esc to quit current operation
M-098	Fail to correct touching panel	Please perform correction again
M-099	The selected pattern is not normal format, please transform.	Press Enter to perform transforming operation. Press Esc to quit current operation
M-100	Cannot transform this pattern	Please confirm pattern
M-101	Restore all the settings?	Are you sure? Yes: Enter, no: X
M-102	Restore the selected item?	Are you sure? Yes: Enter, no: X
M-103	Not select item	Please select one or more parameters
M-104	Parameters initialization	Clear all data in . Please turn off power and restore the setting of DIP switch.
M-105	Cannot copy and cover current pattern	Current pattern number in copy group, system cannot cover it.
M-106	Need transform pattern format	Select pattern is not a standard file format, please convert it to use
M-107	Cannot perform operation to combined pattern	Please enter pattern connection mode, press "CLR" to cancel the combined pattern
M-108	Delete original pattern?	Delete original pattern after format transforming? Yes: Enter No: X
M-109	Intermediate presser in down position	Please lift intermediate presser
M-110	Turn off machine, Bye	
M-111	Large stitching pattern file	Not support this pattern format in this system

	format	
M-112	Wrong transformed pattern format	Please confirm pattern
M-113	Transformed pattern data is too long	Please enter [Operation Settings]->[LCD Screen], select 'Large Sticker Count Pattern Support' parameter set to ON
M-114	Cannot open transformed pattern	Please confirm pattern
M-115	Wrong accuracy of transformed pattern	Set the resolution in the platemaking software to 0.1mm(Tools -> Options Settings - BBB> Resolution)
M-116	Parameter recovery successful	Parameter recovery is successful, please restart machine
M-117	Software version saving successfully	Software version is saved to the base catalogue of U disk successfully
M-118	Successfully set	The machine needs to be restarted
M-119	USB drive does not exist	Please insert the USB drive containing the MP3 files
M-120	There is no second origin	There is no second origin for the current pattern.
M-121	Validation failed while upgrading master program	
M-122	Threading a thread...	
M-123	Whether to restore the saved custom parameters	Determine the key to perform the operation, cancel the key to exit the operation
M-124	The current pattern is locked by the template	Please unlock the template!
M-125	Parameter loading failed	Please contact the manufacturer for maintenance!
M-126	The bottom line is insufficient	Please change the bottom line, press the OK key and re-count
M-127	Cannot generate multiple slit data	
M-128	Complete the graph copy?	
M-129	Memory allocation error	
M-130	Continued use will convert to dot seam	
M-131	The panel does not match the main control	The current system has a staging password, you need to contact the manufacturer to unlock!
M-132	The current panel has a password and needs to be synchronized	There is a password in the panel, but no password in the master control!
M-133	Current master exists password, need synchronization	There is a password in the master control, but there is no password in the panel!
M-134	You need to replace the font, please turn off the power and restart	Special languages turn off speech
M-135	Motherboard ID does not exist	
M-136	Language font is missing	Please update the required font file
M-137	C pattern Failed to open	Error in pattern file, will be deleted!

M-138	Incorrect content of pattern shortcut key	
M-139	The batch conversion function cannot be accessed	
M-140	The number has been taken	
M-141	A trace could not be generated	
M-142	Internal data exception	
M-143	There arc	The ellipse will be converted to point slits
M-144	Determine clearance of production records?	Are you sure? Yes: Enter, no: X
M-145	Clock in success	
M-146	Clock in failure	
M-147	Shrinkage seam conversion is successful	Shrinkage seam part has become a point seam, can not be converted to shrink seam again, it is suggested to keep the original pattern, for the next modification
M-148	Determine clear switch machine record?	Are you sure? Yes: Enter, no: X
M-149	No switching machine record	
M-150	Failed to upgrade the drive program	
M-151	The request failed	
M-152	Password information saved successfully	
M-153	The upgrade file does not exist	The directory does not exist or there are no files in the directory
M-154	Please set the add counter invalid	
M-155	Please set the subtraction counter invalid	
M-156	Are you sure to correct the spindle?	Are you sure? Yes: Enter, no: X
M-157	Invalid block number	
M-158	Reject the current operation	
M-159	The receive parameter is null	
M-160	The parameters have not changed	
M-161	QR code display failed	
M-162	The current position needs to be corrected due to reading new patterns	Please press the OK button
M-163	Shrinkage stitch number	

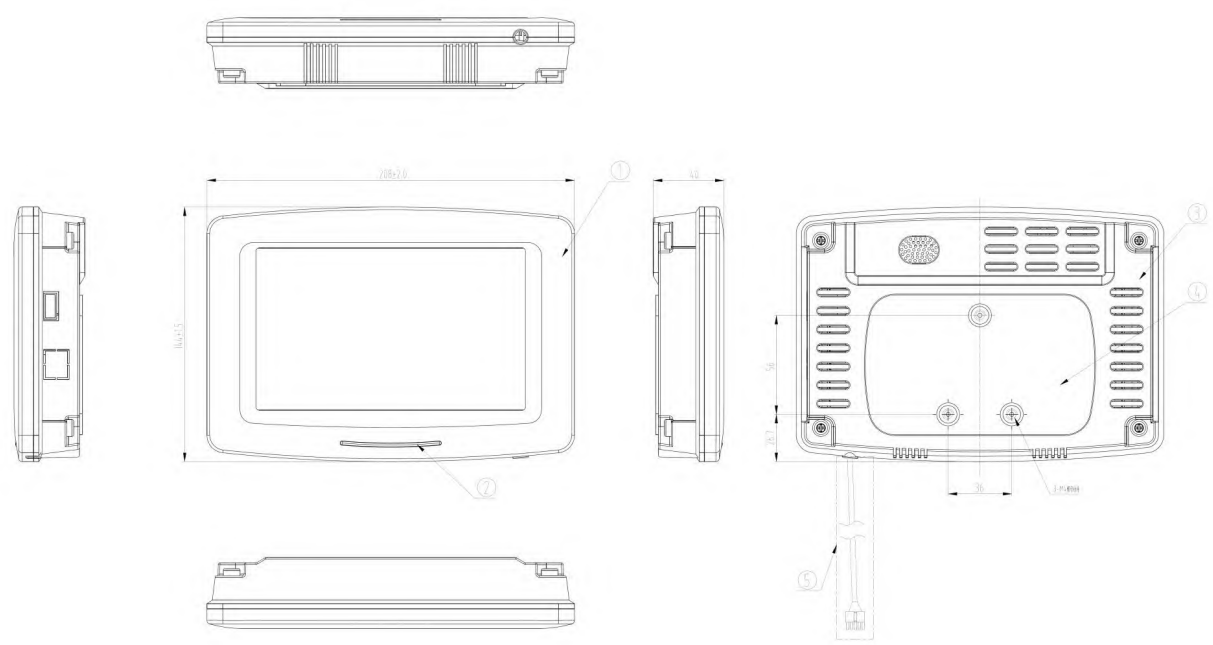
	exceeds actual stitch number	
M-164	Cannot generate slot data	
M-165	Are you sure to correct the upper shaft?	Are you sure? Yes: Enter, no: X
M-166	Are you sure to correct the lower shaft?	Are you sure? Yes: Enter, no: X
M-167	No input point	Coincident with the previous input point position
M-168	Generate curve data?	
M-169	The software does not match the file system	
M-170	Password date change failed	The date entered should be before the date of the next password attack
M-171	Whether to confirm winding	Are you sure? Yes: Enter, no: X
M-172	Start pin contains function code, please confirm whether to modify	The "OK" key means to modify the function code, and the "Cancel" key means to exit and reselect. If you want to keep the function code, please refer to the code information on the right side of the interface to continue moving and make the starting pin the function code.
M-173	The panel is not encrypted, the master control is encrypted	Please confirm whether a new panel has been replaced
M-174	The panel is encrypted, the main control is not encrypted	Determines key synchronization encryption status
M-175	Remote staging Settings already exist on the system	Determine the key to continue operation, cancel the key to exit operation
M-176	Wireless module 1 connection failed	System speed reduced to the minimum, please contact the manufacturer
M-177	Do you want to update the pattern thumbnails immediately?	The thumbnail image will also be generated after the pattern is used
M-178	The system has been set to not network mode	After the networking function is turned on, it can be detected
M-179	A join failure	
M-180	Unable to convert	
M-181	This machine has a password, please note!	
M-182	Whether to delete the selected shape point	
M-183	Whether to modify shape point properties	
M-184	Trick does not exist, whether to download from the server	Are you sure? Yes: Enter, no: X
M-185	The request pattern is not in standard NSP format	
M-186	There is no request pattern on	

	the server	
M-187	Server update software, whether to upgrade operation	Do you want to upgrade immediately? Yes: Enter, no: X
M-188	Machine not registered	
M-189	The action did not complete and timed out	
M-190	Location query timeout	
M-191	Stretch will affect the shrinkage data	There is a shrinkage seam in the sewing data, and the shrinkage seam will be automatically added by expansion, which will destroy the previous shrinkage seam data. Please pay attention to save another pattern
M-192	Upgrade of boot screen is abnormal	
M-193	Please scan the code and start processing	
M-194	Herringbone seam width is too large, need to insert transverse stitch number	
M-195	The panel is not connected to the main control	Dial switch 5 is turned on
M-196	The pattern accuracy is higher than the system accuracy	There will be a loss of precision in the pattern data
M-197	Whether to overwrite other format patterns of the same name on a USB disk	Press OK to overwrite the file, and press Cancel to exit the current operation.
M-198	Generate pattern, continue editing?	Enter, continue to set parameters or function code; No: X, exit save pattern.
M-199	Do you restore rigidity of all stitches to their original values?	Are you sure? Yes: Enter, no: X
M-200	Do you want to save laser offset values?	Are you sure? Yes: Enter, no: X
M-201	Do you want to save the origin offset value?	Are you sure? Yes: Enter, no: X
M-202	Base 2 can't be in the same position as Base 1?	
M-203	Are you sure to use the current pocket opening parameters to generate template patterns?	Are you sure? Yes: Enter No: X
M-204	network is down	
M-205	Press the OK key to save the file	
M-206	No hotspot is selected	

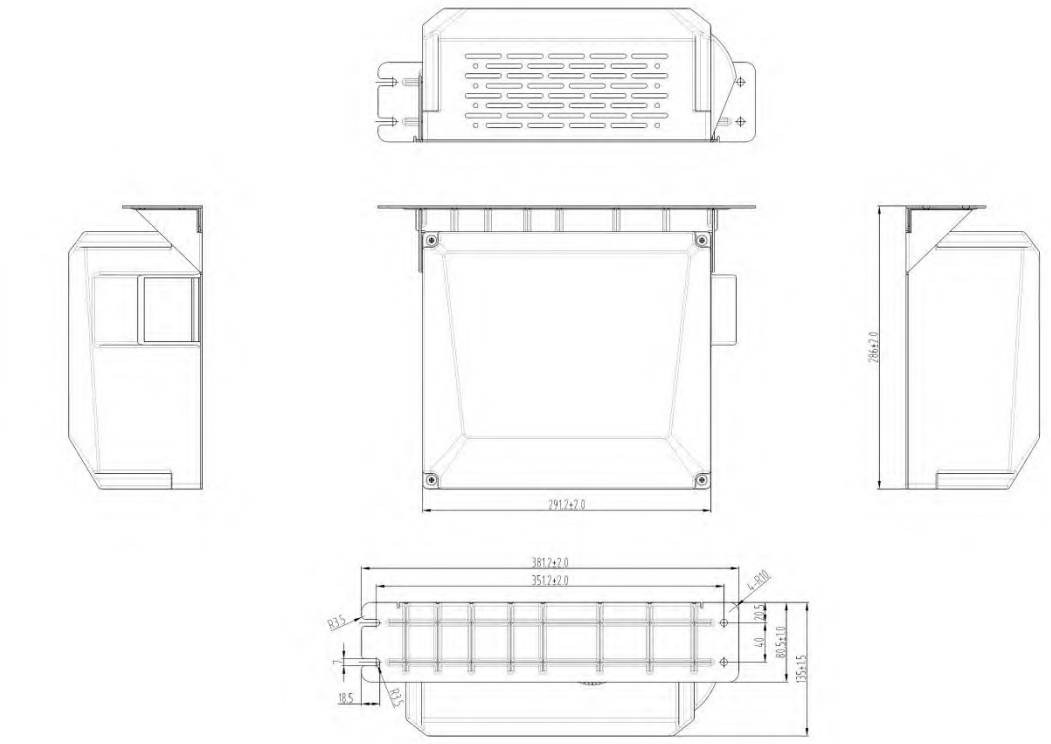
M-207	Preset time prompt	
M-208	Incorrect Korean laser parameter settings	The parameter value needs to match the shape relationship
M-209	The synchronous belt has reached the warning mileage. Please check and repair the synchronous belt	
M-210	The guide rail has reached the expected mileage. Please lubricate and maintain the guide rail with oil	

4.Appendix 2

4.1 Operating box mounting dimensions



4.2 Control box mounting dimensions



4.3 Diagram and Cable Connection