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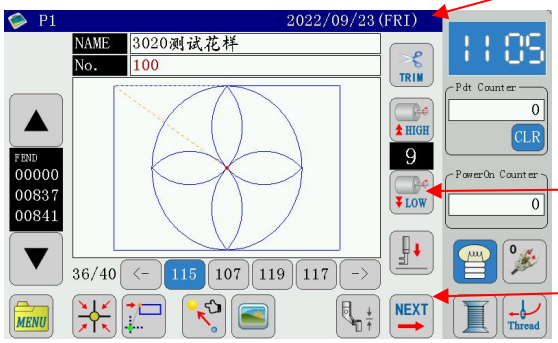
1、Basic screen, key operation instructions

Note: At first, the contrast of the pager must be adjusted. If you have replaced the control box, be sure to readjust it。

(Adjustment method please refer to the function module[Screen-related adjustments]。)

Screen form

* Example screen 1 (Standard screen 1)



The top line of the screen]
Usually is ： index
（Simple screen instructions）

（See the example screen2）

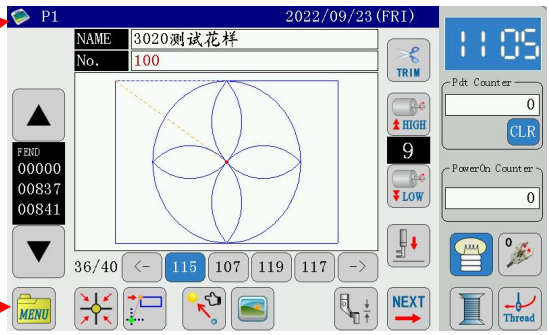
The number will continue to move while this button is pressed and held

When the finger presses this key to leave, you can see the next screen。
（The above key exceptions）

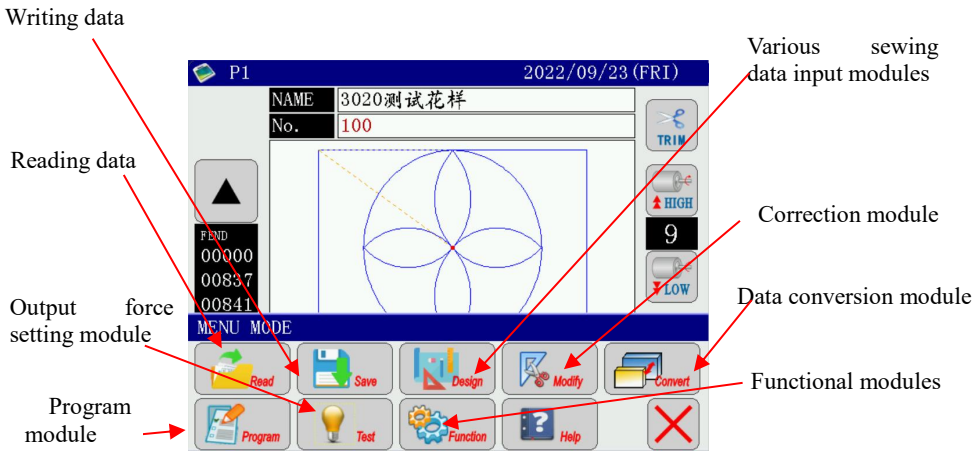
* Example screen2(When the MENU button of the standard screen 1 is pressed)

Description of buttons and display of various directories

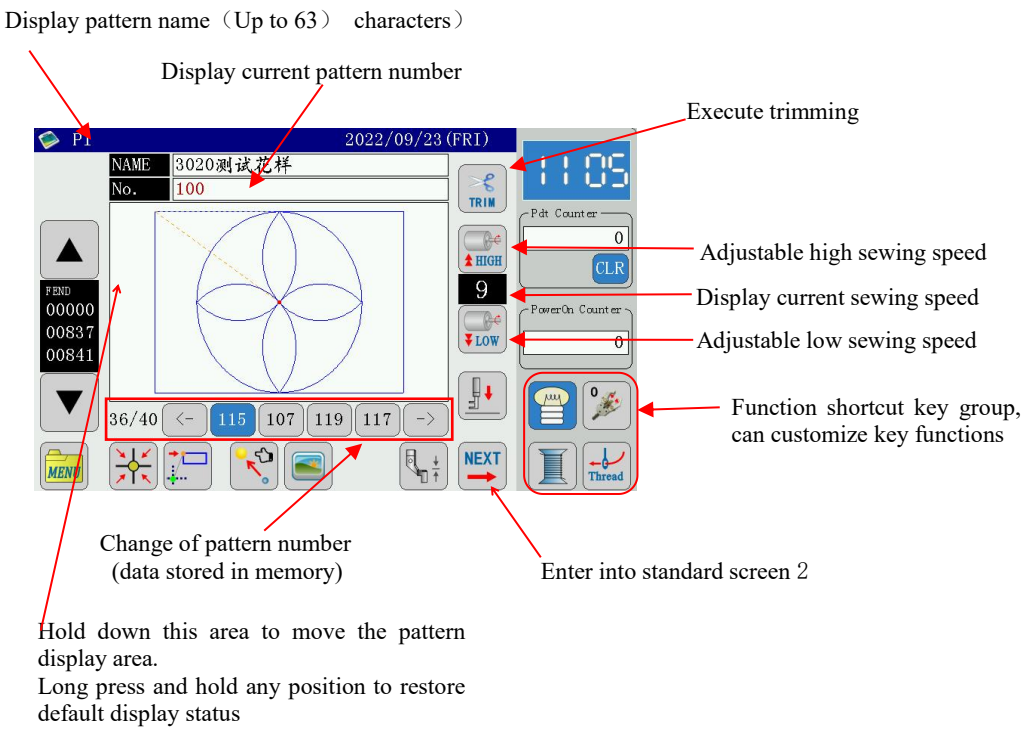
When pressing this MENU key,
Display button pressing status

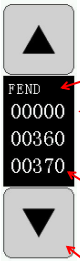


* Example screen3(Will open the standard screen 1 directory button screen)



Screen 1 instructions





Display the type of sewing information for the current position

Display the number of stitches at the current position

Display the number of stitches for this pattern (including data such as feed, trimming, end, code, etc.)

Display the number of sewing stitches for this pattern (excluding data such as feed, trimming, end, code, etc.)

Detect pattern actions (include forward (up arrow)/backward (down arrow))

Perform inch movements (inch movements have positive/negative directions).

(1) After the origin reset action, when the presser foot is lowered and the ↑ key is held down, the X-Y movement axis will move in the forward direction according to the pattern data. When the ↑ key released, it will stop moving.

When holding down the ↓ key, the X-Y movement axis will move in the backward direction according to the pattern data. When the ↓ key released, it will stop moving.

(2) When holding down the ↑ key continuously, the X-Y movement axis will continue to move in the forward direction until the sewing data is completed. If the presser foot is still in the lowered state and there are no errors in the pattern data, press the operation switch once to make the sewing machine run for sewing.

When holding down the ↓ key continuously, the X-Y movement axis will continue to move in the backward direction until to the origin position . If the presser foot is in the lowered state and there are no errors in the pattern data, press the operation switch once to make the sewing machine run for sewing.

(3) In the testing of inch movement, the presser foot in the sewing area of the pattern will automatically lower, while in the feeding area the presser foot will automatically rise.



...Press this key to expand the catalog window.



...Press this key to return to origin.



...Press this key to return to second origin.



...Press this key to enter the graphic positioning screen.



...Press this key to enter the graphic display screen.



...Press this key to enter the modify tension line reference value screen.



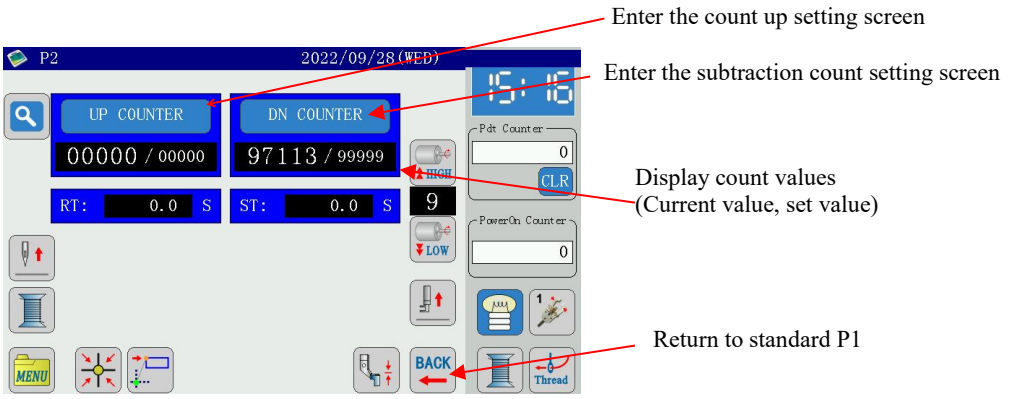
...Press this key to enter the modified presser foot reference screen

(The intermediate pressure foot disables this function in the falling state , If you need to modify the intermediate presser reference, adjust the intermediate presser to the up position）.

... Adjustable presser foot lift. (※ 1 The direction displayed by the arrow changes with the up and down direction of the presser foot)

(※1) Regarding the middle pressure foot
When threading, it is more convenient to lower the presser foot.

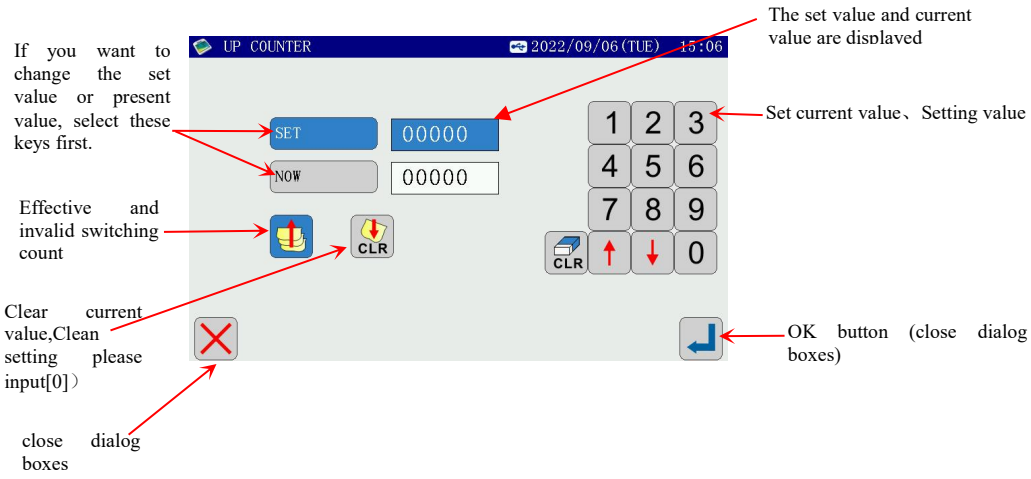
Example screen 2 instructions



...Press this key to stop the needle to the up or down position(The arrow will indicate where the needle is currently stopped, up or down).

 ...Press this key to enter the reel function screen(The intermediate presser lowers and the setting screen of the winding function is displayed).

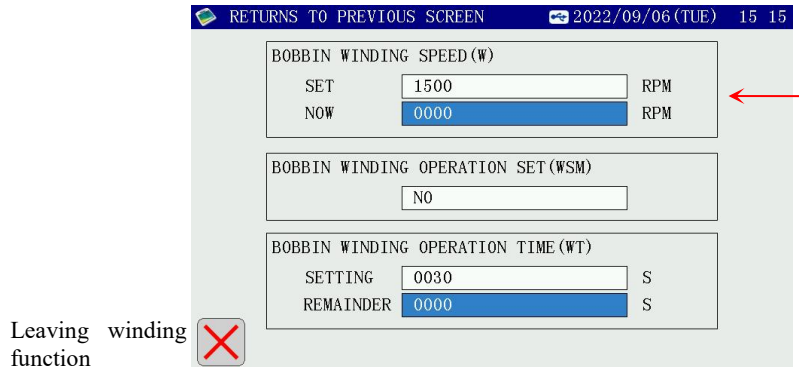
Addition count setting screen explanation
(Countdown setting，In addition to the valid/invalid of the kill button，Others are the same。)
* The counting method and eliminating method of adding counting (counting) is according to the setting of program module，for the setting method, please refer to the function setting of each program module."



Description of reel function screen

When the scroll button is pressed in the standard screen 2，Intermediate pressure foot will lower，The screen displayed at the same time will be replaced with the following screen. Step on the outer presser foot switch to lower the outer presser foot，When you step on the switch again，the sewing machine rotates at the set speed，the XY axis does not move，When the foot releases the operation switch, the sewing machine stops at the up position。

* The action of the reel is performed according to the setting of the program module，For the setting method, please refer to the function setting description of each program module.



Display the current set value

Leaving winding function

Description of the main keys

These buttons are the main buttons commonly used in most screens, Its role is as described below. See other keys「 Appendices [Key List]]」.

 ...Press this button to return to the original point。

 ...Press this key to make a decision and decide。

 ...Press this button to return to the previous screen。



...Press this button to leave the current module。

 ...Press this key to cancel the previous undecided operation。



...Press this key to expand the catalog window。

 ...The data in the displayed list is long(Such as pattern number list, function list, etc.)

...Press this key to scroll through the front and back pages。



...Press this button to open the jump jog ON/OFF and action setting screen。(Please see the next page for details。)

Description of operation

Sewing operation

(1) Before actual sewing, please confirm the setting of sewing conditions again, especially the setting of speed setting value (0 ~ 9)。

(2) Sewing speed is determined by the speed setting and the length of the seam,the speed setting value determines the maximum sewing speed and the seam length limits the sewing speed.。

Note: When the sewing machine is sewing, please do not change the speed setting (except when paused midway), it will affect the line-up situation.

(3) After putting the material into the designated location， Use the foot first to step on the external pressure foot switch to turn ON to lower the external pressure foot， when the sewing machine is stepped on again, the sewing machine will start actual sewing operation.，once you start running, you can leave the switch and you don't have to continue，

The sewing machine will also automatically run to the end and return to the original stop. The external presser foot will also automatically rise.

Suspended halfway

If you want to stop the operation during sewing， Please press the Emergency Pause button on the head (see below)， The needle of the sewing machine will stop at the up position (factory setting)，Midway pause。To lift the pause in the middle，You must turn the emergency pause button in the direction of the arrow，will be lifted，can continue to do the following actions。

(1) If the foot switch is turned on, sewing will continue.。

(2) Press the jog positive/negative direction keys to move to the sewing start position。

(3) Foot external pressure foot switch can make the external pressure foot rise。

(4) Change sewing speed setting。

(5) The medium pressure foot can be raised and lowered。

Note: The stop position of the hour hand when it is paused midway can be set by the setting panel of the control box to the program module setting.

Repairing method

It is possible to make use of the above-mentioned method of temporarily repairing the suspension。

If you press the emergency pause button when you are disconnected， after the needle has stopped at the stop position， first lift the pause， then hold down the negative direction key of the inch and rewind the external pressure foot to the position of the first two or three stitches at the breakage point. After the needle thread is put on and then the treadle is turned on, you can continue sewing。



* When the needle thread is put on, it is absolutely dangerous to use the foot to step on the operation switch and make the sewing machine run.

2、Data category

M format output pattern data can be directly used on Mitsubishi original machine。
B format output pattern data can be used directly on brother original machine。

Difference

		M format	B format
Pattern name display color		Blue	Brown
Empty length step size maximum		12.0mm	Machine range
Modify module	Needle correction (a correction)	not support	support
	Segment correction (Z stitch)	support	not support
Transformation module	Graphic zoom in and out（With round or arc）	The circular shape changed when the X, Y change ratio is not the same（Zoom in proportion to XY）	The circular shape changed when the X, Y change ratio is not the same is oval
	Herringbone seam change	support	not support
	Multiple times sewing	Modify the original multiple sewing data（Number of repetitions, distances）	Generate new multiple stitch data in selection section（Can not modify the original multiple times））
	Swap Start/End	not support	support
Save file type		.xxx (xx means 01~999number)	.SEW/.sew

3、Reading, writing, deleting of pattern data

(1) Reading, deleting of pattern data

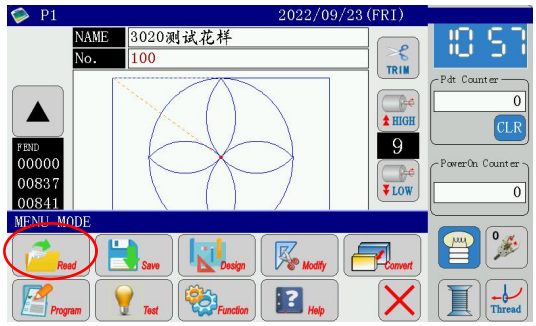
[1] pattern data reading

Operation points

* Select the read key from the directory window to enter the read pattern screen。
* Change the target to disk again。
* Select the pattern number and read it。

Operating Instructions

1．Reading the pattern data selection

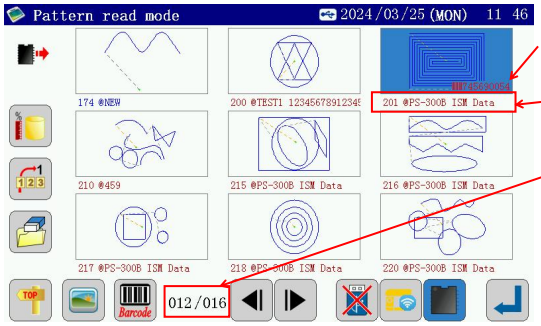


* Press 

to open the menu page。

* Press 

2．Internal memory and disk switch



If there is a bar code, display the bar code

Display pattern number and name

（M format：blue　B format：brown）

Display page（current page）

* Read from the disk，press  to change.

note if don't put disk in,will disable the selection of the corresponding disk (USB disable：）.

* storage many pattern data， press  and  to scroll through the screen。

*Other key instruction

 ...Press this key to enter the network device reading and writing pattern screen.

 ... Press this key to enter the quick reading pattern screen (only valid for selecting memory devices)

 ...Press this button to enter the display memory capacity screen （ only select memory devices effective。

 ...Press this key to enter the delete specified pattern screen。

 ...Press this button to enter modify view bar code screen（only select memory devices effective）。

 ...Press this key to enter the pattern display screen.

3. Select pattern number, determine

* After selecting the desired pattern number， press  key。

* The pattern number selected in the floppy disk, if it is also found in the internal memory, will display the message [overwrite or replace the original pattern data on the memory?].

press  to read the pattern data，but not saved to memory。

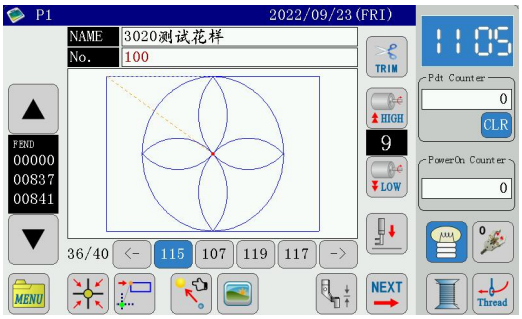
press  read and save pattern data to storage （ Covers the original pattern with the same number）。

Note: When new data is added, the original data in the internal memory will disappear. You can avoid it in advance with the following methods.

* Write the same numbered data in internal memory to another disk。(See description on the next page)

* Change the same numbered data in internal memory to another pattern number and save it in internal memory.

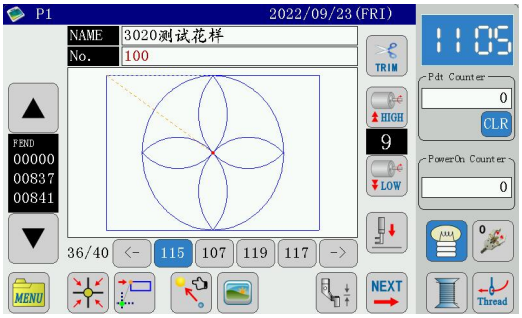
4 . Finish reading



* Will show the pattern number of the pattern being read out

Note　Reading of pattern data（Convenient function）
Shortcut readout of pattern data（Only support internal memory pattern data）
Simple operation to read pattern data。

Operation Instructions　reading pattern data



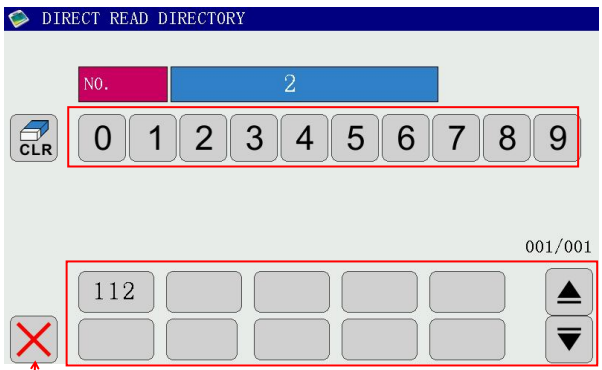
* In the top right of the standard scree pattern, there is a row of buttons to call out the pattern number directly。(Use 115 as an example to explain。)

* press ←, The number of the pattern Displayed on the number key (pattern number already stored in internal memory) can be used in the way of horse racing,from left to right are displayed in order.

*press →, The number of the pattern displayed on the number keys (pattern numbers already stored in the internal memory.

* Press 100(number key) to call out the pattern data in the internal memory that is the pattern.

Quickly read pattern data（）



Input the pattern number to be read

Select the pattern to read

Return to the previous screen

[2] See the modified bar code/RFID

Operation points

* Select from the catalog 

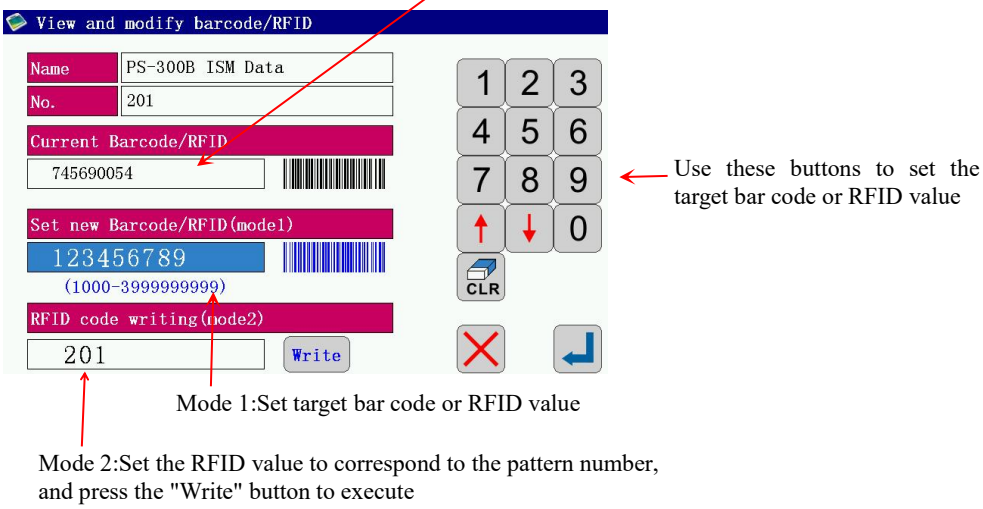
，Enter the reading pattern screen。

* Select target number pattern in reading pattern picture，press 

Enter the modify bar code screen.
* Enter the target bar code or scan set target bar code, press OK。

Operation instruction

1 . Modify the bar code or RFID



*Note There are two ways to set the target bar code value。

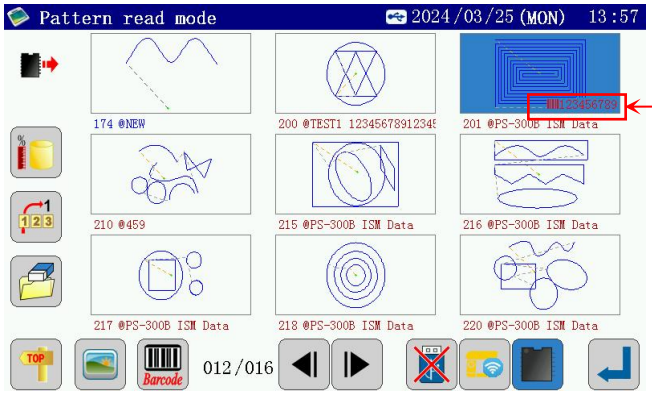
（1）Direct input via keyboard keys；

（2）Scan target bar code input by scanner.


...Press this button to return to the previous screen without processing。


...Press this key to set the pattern bar code to the target value and return to the reading pattern screen.

2. Modified finish



The bar code value is the input setting value

[3] Delete pattern data

Operation points

* Select from the catalog 

, enter the reading pattern screen。
* Select target disk in reading pattern picture。
* Select the pattern number and delete it。

Operation Instruction

1. pattern data selection。

2. Pattern deletion。

* Select the pattern number to delete and click  。

* Show[delete the sewing data code in internal memory?]or[delete the sewing data code on the disk？]message。

If you press  If you do nothing, go back to the pattern data screen.。

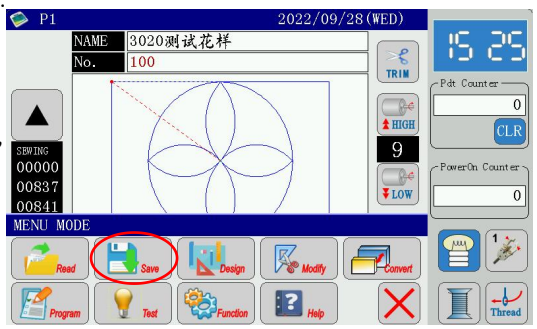
If you want to delete the pattern data， please press  。When the message “The disk is deleting sewing data” is displayed, the screen will return to the standard screen.

(2) Writing pattern data

Note　Sewing data can be written up to 999 pattern numbers（1-999).
(But the content of the pattern will affect the number of pattern numbers written。)

Operation points
* Select the pattern key from the catalog window.
* Select the target storage device.
* Set the pattern name, pattern number, and write it.

Operation Instruction
1 . Selection of writing pattern data



*　After selecting the pattern data to be written on, the main standard screen

* Press 

, open the catalog window.

* Press 

, Enter the writing pattern Screen.

2 . Set pattern name, pattern number
* Newly entered system automatically assigns an initial design number and number.



Display pattern name，Click to switch to set pattern name mode

Display pattern number Click to switch to set pattern numbering mode

Setting pattern name and number

Choose save device for pattern

Decision/determinatio

Return page


...Press this key to enter the network device reading and writing pattern screen.


...Press this key to check the free capacity of the internal memory (only select the memory device is valid).


...Press this key to set save format（：Save as M format ：Save as B format ：Save as J format ：Save as D format ）


...Press the key, you can delete the existing pattern name, a word to the right of the number.


...Indicate the current input font format, click to switch the input font。

（English capitalization： Lowercase letters： Chinese：）

3 . Start writing pattern data

* After setting the pattern name, number, and storage device on the writing pattern screen,press  to confirm.

（1）Writing patterns to internal memory

* The number of the pattern to be written, as in the same internal memory，will show [Overwrite/replace memory original graphics data?] message。

Now press  will update new pattern to Internal Memory，but not save.

Press  will execution overwrite new data。

* when [Internal memory is writing sewing data...]after the message is extinguished， the screen will return to the standard screen.

（2）Writing a pattern to a disk

* The number of the pattern to be written, if it is also on the diskette，will show[overwrite/replace the original graphics data of the disk?] message.

Press  key to update new pattern to internal memory，but not save.

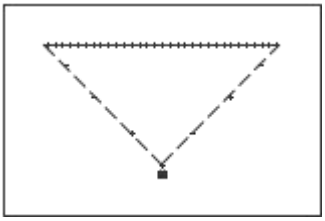
Press  to execution overwrite new data.

* When the message "The disk is writing sewing data..." is displayed, the screen will return to the standard screen.

4、The basic of the operation process

[1] Pattern making process

The illustration of the pattern making process for simple sewing data as shown below.

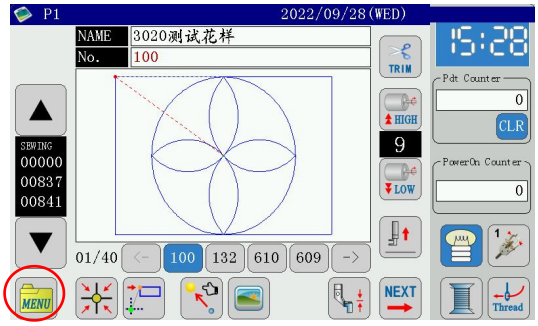


(Picture 1)

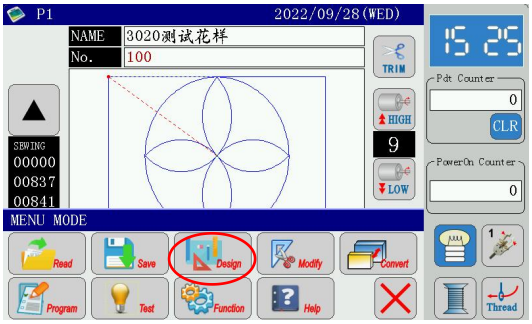
The types of data on various sewing patterns will be described later.
Here, the pattern making process and the screen transition of the sewing data will be described first.

1 . Start from the standard screen.

* press 



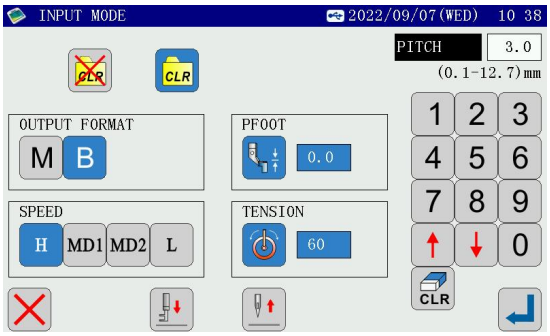
2 . Will expand the catalog window screen.



* press 

.

3 .The data input screen will be displayed.



* Playing board data selection



Indicates that the board design is based on the original pattern， press 



Demonstrate the design of the new pattern data， press 

* Board output format

M format

Output pattern data can be used directly on the original Mitsubishi machine. press 

B format

Output pattern data can be used directly on the brother original machine, press 

* Intermediate pressure foot reference value setting

Press  key to setting.



Indicates that the presser foot reference value adopts the current setting value when the board is designed.



Indicates that the presser foot reference value is set to 0 when the board is designed.

* Winder tension line reference value setting

Press  key to setting.



Indicates that the tension line reference value adopts the current setting value when the board is designed.



The tension line reference value is set to 60% when the board design is shown.

* setting speed.



high speed 

medium-high speed 

medium-low speed 

low speed

* Set the length of the seam

Press the key from 0 to 9 and ↑ ↓ and CLR, setting 1 (0 . 1 mm) ~ 127 (12 . 7 mm)range.

* If the above information has been set,, please press ↵ .

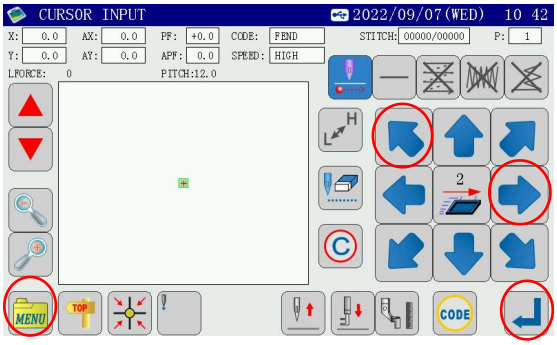
* Other key description

✕ ...Press this key to return to the main standard directory.

...Press this key to adjust the lift of the presser foot（Change the up and down direction according to the arrow display direction)

...Press this key to stop the needle to the up or down position(The arrow will indicate where the needle is currently stopped, up or down)

4 . The input screen of the move key will be displayed.(To enter the sewing data for example Figure 1)



* When this screen is displayed initially, function is FEED.

press ↖ to move the starting point A position to the bottom of the when you hold down the move key, X and Y on the screen move and the amount changes.
After moving the location to the destination,

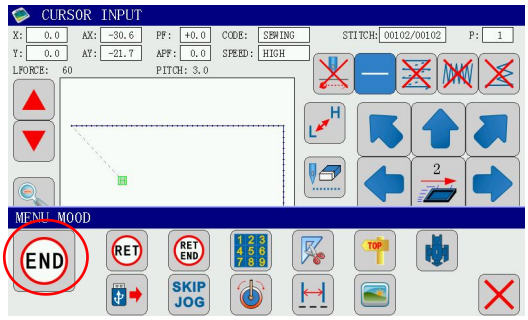
Please press ↵ 。
(The air delivery data that was sent to point A has been completed.）

* The function will be automatically converted to SEW (sewing), press → to move the end B position under the needle.

After moving to a destination, please press ↵ to decide.(The data on the straight seams between point A and point B has been produced.)

* and press MENU 。

5 . Will expand data entry directory window.



* Press RET END back to homepage， finish the pattern input.
It will make air return and end function back to the origin.

* Press END finish the pattern input.
It will make end function.

The external presser foot automatically returns to the origin position.
So pay attention to the stop position of the

6 . Need to press the[home page]key。



* Press .

The needle will rise to the up position,If the needle does not stop in the up position, it should be noted that the needle may first fall and then rise to the upper stop position.

7 . Will ask to choose how to save the pattern data.



* Display original pattern order and number

* Save method selection

OVERWRITE

The pattern data generated by the board will overwrite the original pattern of the memory.

STORE AS NEW FILE

The screen will go to the writing pattern screen and set to save the pattern name and number.

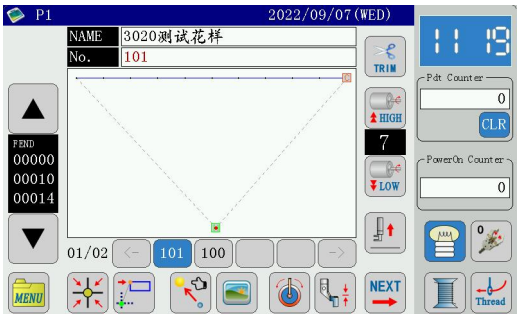
NON'T STORE AND EXIT

The operation updates the pattern data of the board design into the memory, but does not save the pattern data.

* ... Return to the pattern design screen.

* ... Perform pattern save.

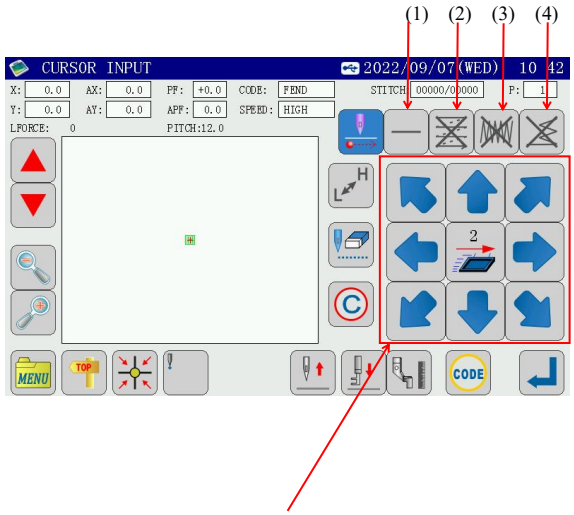
8 . return to the main standard screen 1.



* return to the standard screen, please confirm that the input pattern information is correct.

* The input has been completed.

Additional instructions for moving the key input screen
Move the key input screen description.



[STITCH]： Displays the number of stitches/total stitches at the current needle position.

* In the last position
(The number of stitches at the current needle position = the total number of stitches)

「X, Y」： Display the amount of movement entered with the move button

「 *PF* 」: Display the amount of change in the presser foot in the current design pin.

「 PITCH」「 SPEED」

「 CODE」： Shows the inbound status of the current settings.。

/P」： Show the inputted lines, arcs, curves, etc. Enter the number of points.

* Inching motion
(The number of stitches at the current needle position <the total number of stitches)

「X, Y」「 PF」「 PITCH」「 SPEED」

「 CODE」： Position coordinates of the needle

XX ： Work table X current coordinate value
YY ： Work table Y current coordinate value
XPF： presser foot current height value

「 Move key/pattern representation」

In the last position (the number of stitches at the current needle position = the total number of stitches), press these move buttons to enter the amount of movement data into the file.

In the inching motion (the current stitch number of the needle position <the total number of stitches), the pattern in the current version is displayed.

press  can change the moving speed of the frame， total 1、2、3、4 levers.

(1)「Input method setting button」
Indicates that the current setting is in the basic input method. (A bit, straight line, polygonal line, circle, round orphan, curve, etc.) When this button is pressed, it will be converted to the screen set by the input method.

(2)「Multiple seam input, subsidy input setting button」
Indicates that it is currently set in the multi-slit input and subsidy input method. (There are no setting, multi-slot in the same direction {shift}, reverse multiple sewing [empty delivery], multi-directional sewing in the same direction [sewing], reverse multiple sewing [sewing], auxiliary sewing, etc.) When this button is pressed, it is converted into multiple stitches. The detailed setting screen of the subsidy sewing can be set to various details.

(3)「Z-stitch input setting button」
Indicates that it is currently set in the Z-stitch input method. (There is no Z-stitch, Z-stitch, etc.) When this button is pressed, it will be converted into a detailed setting screen of the Z-stitch, and various details of the Z-stitch can be set.

(4)「Back and forth reverse stitch input setting button」
Indicates that the current setting is in the back and forth stitch input method. (There are no back stitching, back and forth back stitching, overlap stitching, etc.) When this button is pressed, it will be converted into the detailed setting screen of the back and forth back stitch, and various details of the back stitch can be set.

(5)「Type of function display
FEED ---feeding
FEND ---feeding end function (displayed in the Inch Engagement.)
SEW ---Basic input (straight line, arc, circle, curve, polygonal line , point)
P ---Multi-layer sewing in the same direction
I ---Multi-layer sewing in reverse direction
O ---Auxiliary sewing
Z --- Z-stitch sewing
B ---Sewing in the front and rear direction

(Other additional functions are also displayed in the Inch motion.) (Please refer to the "Additional Functions List")


「Cancel key」： press this button can cancel the input operation that has not been decided yet, and return to the previous input point.


outer presser foot will move, pay attention to the stop position of the needle.


「Last entry point cancel button」: When you press this button, you can cancel the last confirmed input point and return to the previous input.


outer presser foot will move, pay attention to the stop position of the needle.



「Speed correction key」： Press this button to change the set speed H →L→MD 2→MD 1→ H….



「Additional function setting button」： press this button to converted into a code setting module.


「presser foot setting button」： Press this button to enter the presser foot setting screen.


「Inching forward button」： Press this button the platform move forward according to the pattern trajectory.

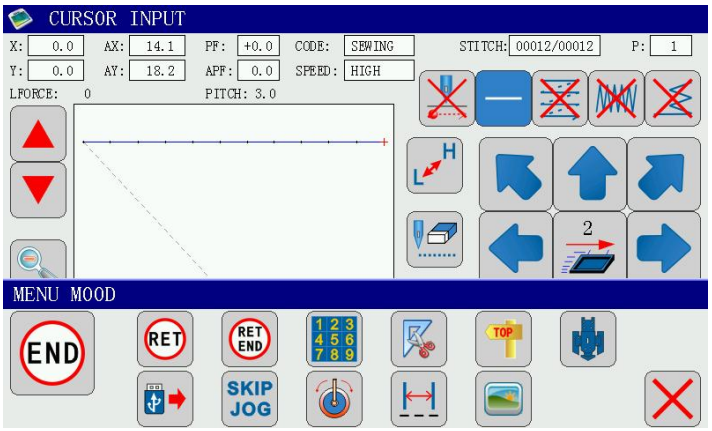

「Inching backward button」: Press this button the platform move backwards according to the pattern trajectory.


「Zoom out key」： Pressing this key will shrink the displayed graphics.


「Zoom in key」： Pressing this key will enlarge the displayed graphics.


...Press this key to stop the needle to the up or down position(The arrow will indicate where the needle is currently stopped, up or down).

Directory description of data entry





Press this button will make the function data sent directly from the current position back to the origin and end, and complete the pattern input module.



Press this button to create the finished function data and complete the pattern input module.



Press this button will create a message that is sent back to the origin from the current location.



Press this button will switch to the screen entered with the numeric keys.


Press this button will switch to the screen input with the move button.(As shown in the figure above)


Press this button to enter the correction module screen and correct the input pattern data.


Press this button enter the graphic display screen.


Press this button will change the screen to change the length of the seam.

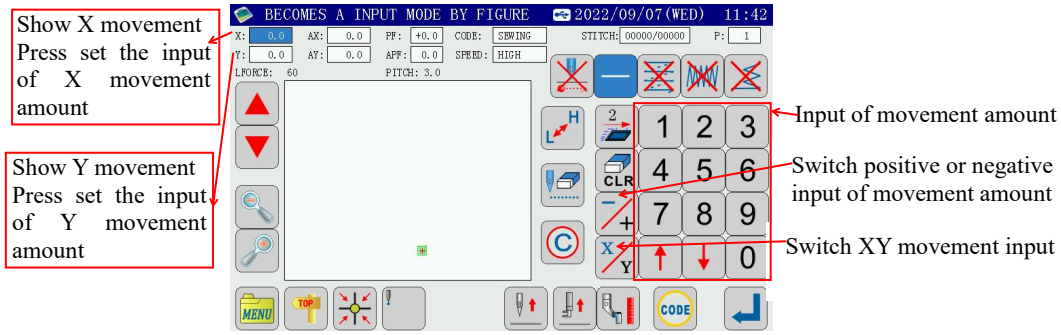

Press this button will enter the call out function screen, and the existing pattern data will be recalled to the back of the pattern being input.



Press this button will switch to the jump inching motion setting screen.


Press this button will switch to the gripper tension line setting screen.

(1) Explanation of the numeric input screen



（1）Description of the call out function screen



* Origin to pin point transfer setting

press  , the transfer data between the origin and the needle point is retained

press  Clear the transfer data from the origin to the needle point.

* End point to homing transfer setting

press  The transfer data from the end point to the homing point is retained.

press  Clear the transfer data from the end point to the homing point.

 Setting whether to update the display of the selected pattern.

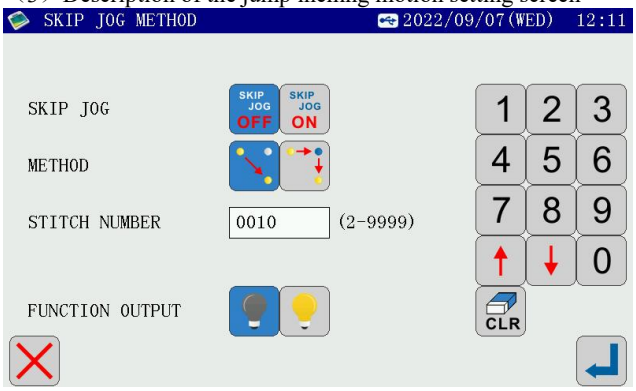
 Click to display the pattern number and name on the previous page.

 Click to display the pattern number and name on the next page.

Press to return to the pattern design screen without processing.

Press to add the selected pattern to the setting data and return to the pattern design screen.

（3）Description of the jump inching motion setting screen



* First decide whether you want to use (ON) or not (OFF) jump inching.

SKIP JOG OFF ： no. SKIP JOG ON ： yes.

* Then decide on the method of movement.

： Move in a straight line

： Follow the trajectory of the pattern to move.

* Use the number keys to set the number of stitches to move.

* Then decide whether to do function output during the move.

： no Function output. ： Function output.

* final press make the decision .

5、Various input modules for sewing data

> When inputting pattern data, it is safer to remove the middle pressure foot and it is also easier to input pattern data correctly.
> Press [Origin restoration] button，Be careful that the needle will rise and stop at the top stop position.
> If the needle does not stop in the up stop position, it is important to note that the needle may first drop and then rise again

Basic input

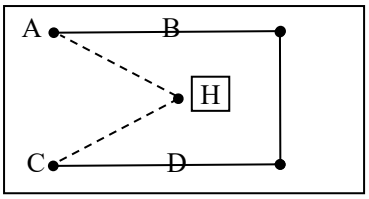
Function	key	description
straight line		2 points input： Straight stitching between the current position (entered) and any input point.
Circular line		3-point input: The current position (entered) is arc-stitched by 2 points of input.
circle		3 points input: The current position (entered) is circularly stitched by 2 points of input.
curve		The current position (entered) is used for curve sewing by inputting points (up to 127 points).
polygonal line		Straight line stitching between the current position (input) and the input point (up to 127 points)
point		Sewing at the beginning of a needle. * The distance between the point and the point should be within 12.7 mm.

Additional features	key	Additional functions for each item are added to the pattern that has been input.
	CODE	

(1) Straight line input

Operation points

* Please specify as a straight line input( ) 。
* 2 point input: Straight stitching between the current position (entered) and any input point.
  [Example] Make a look at the pattern data as shown below.

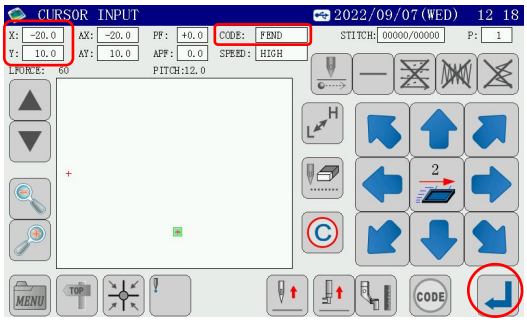


Instructions

Go to the air input between point A.

* Press from the standard screen MENU then press Design It will be converted to the data setting input screen.
* Set various conditions data to press It will be converted to the screen for moving key input.
* Check if [CODE] is FEED (shift), if not, please click , [CODE] will change to FEED.
* Use the Move button to move the A point to the bottom of the needle. (shift to point A)

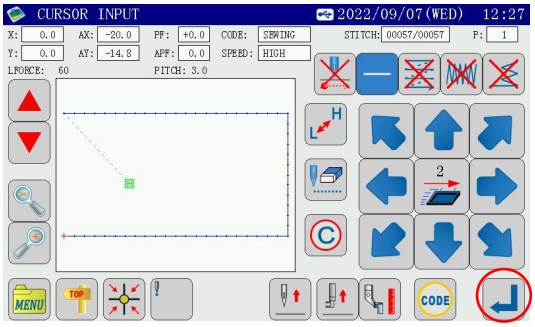
2 . Decide to go directly to point A



* Check the amount of movement.
[example] X：－20．0 ， Y： ＋10．0

* press  made the decision.
(The direct delivery of information to point A is completed)
*The amount of movement will be cleared
X： 0．0 ， Y：0．0
* [CODE] will change to SEW.

3. Sewing input to points B, C, and D

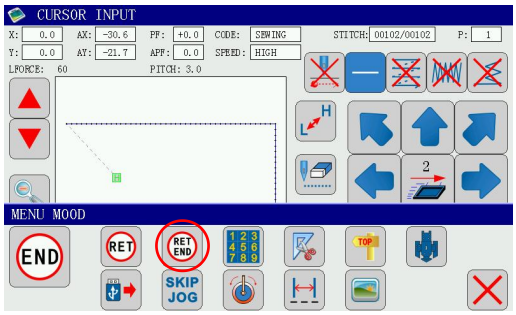


* press MOVE Move position B to the bottom of the needle.
Press  make the decision.
(The production of the straight seam between the B points is completed.)

* press MOVE Move position C to the bottom of the needle.
Press  make the decision.
(The production of the straight seam between the C points is completed.)

* press MOVE Move position D to the bottom of the needle.
Press  make the decision.
(The production of the straight seam between the D points is completed.)

4 . Restore, end function input



* Press  .
(The production returns to the shift and end functions between the origins.)

The external presser foot will automatically return to the home position.Pay attention to the stop position of the needle.

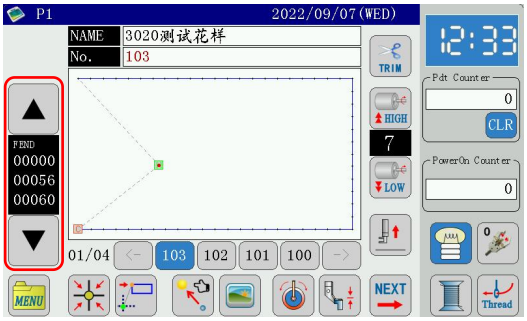
* A message [Please do the return-to-origin] will be displayed.

Then press  .

* The Select Save Pattern screen will be displayed. After saving the completed pattern data, it will return to the main standard screen.

The needle will rise to the upper stop position.
If the needle does not stop at the upper stop position, it should be noted that the needle may drop first and then rise to the upper stop position.

5 . Verification of pattern data



* Check the pattern data.

Use () the jog key to test whether the pattern is correct.
(If the pattern input has not been completed and the ENTER button has been pressed, it can also be tested.)

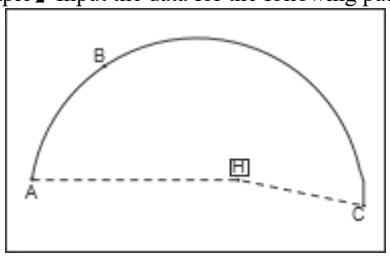
* For correction, please refer to the correction module description.

(2) Circular Arc Input

Operation Instruction

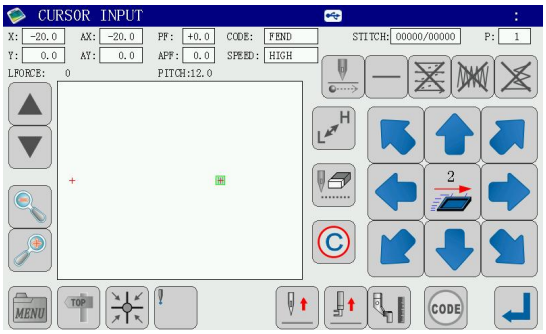
* Press the button () 。
* 3-point Input: The Circular Arc Sewing starts from the current point (already input) and passes two newly-input points

【Example】Input the data for the following pattern.



Operation Instruction

1.Input the Parameters for the Shift to Point A under FEED Mode.



* Interface and then the button  then press  , It will be converted into the data setting input screen, and various condition data will be set. After pressing the key, it will be converted into the screen of the moving key input.

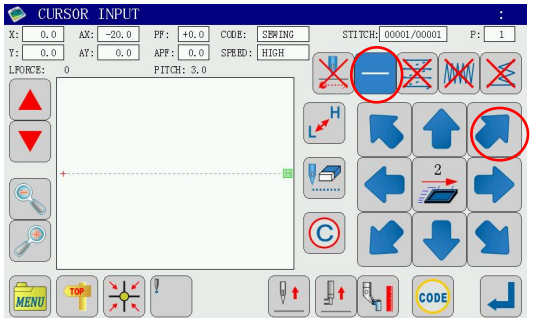
* Check if [CODE]change to FEED(shift)， if not, press  , [CODE]will change into FEED.

* Use the Move button to move the A point to the bottom of the needle.
(Directly sent to point A.)

* Check the displacement

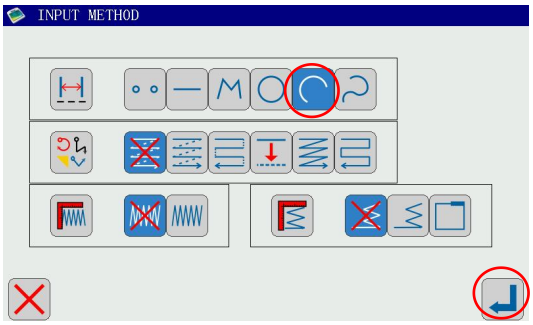
* press  to confirm.
(The Shift to Point A under FEED Mode has been completed)

2 . Switch between Figure Input Modes



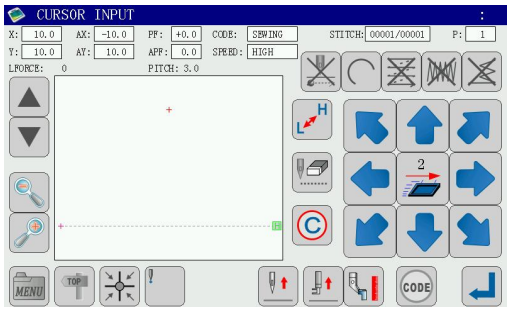
* The displacement will be cleared.
* [CODE]will change to (SEW).
* If shown is not  「Arc input(not in  straight line input」), press  to change the display) The current sewing type will display on the button.)

3 . Select Circular Arc Input.



* Press .
* then press  to confirm.
* The system will return to Shifting Button Directory.

4 . Confirm the circular arc passes point B and ends at Point C.



* Use the Move button to move the B point position to the bottom of the needle.

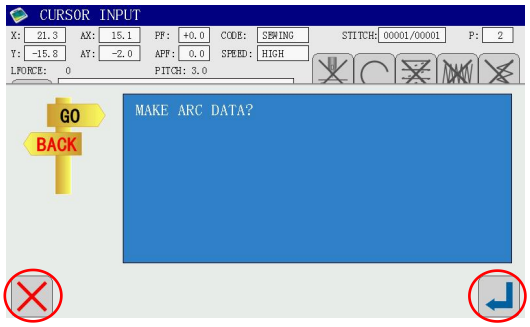
* Verify the displacement.

* press  to confirm point B . (to confirm B position.)

* Use the Move button to move the C point position to the bottom of the needle.

* Press  to confirm Arc input.。

5 . Process Circular Arc Data



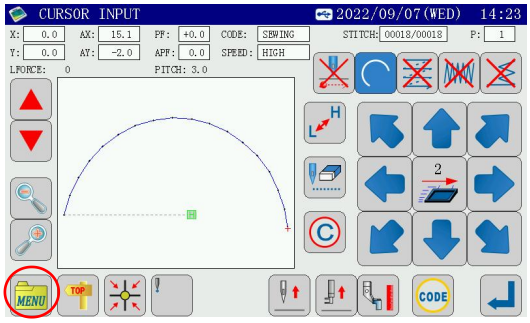
* Will show [Can you make a circular arc of information?] prompt message.

* Press  to return to the interface for Point C Input.

* Press  The Circular Arc sewing pattern will be Generated. (An arc will be made.)

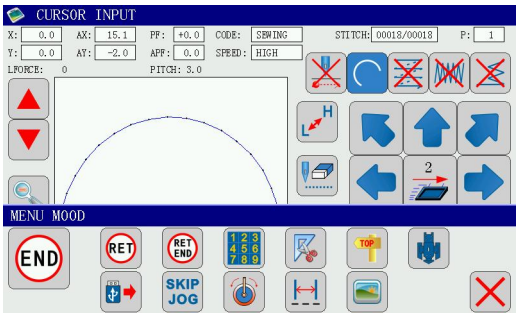
* The message will appear in [Data Creation], [Please Wait].

6 . Complete the data input process for the Circular Arc Sewing from Point A to B to C



* Press  .

7 . Reset to Zero and Complete Roundness Data Input Process.



* Press  .
(The program for Resetting to Zero under FEED)



The external presser foot will automatically return to the home position,pay attention to the stop position of the needle.

* The message [Please do the return-to-origin] Will be displayed.

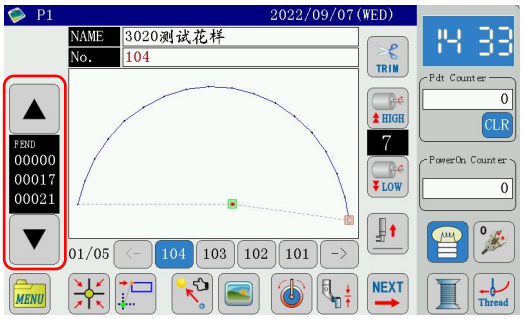
then press  .



The needle will rise to the upper top position.
If the needle does not stop at the upper stop position, it should be noted that the needle may drop first and then rise to the upper stop position.

* The Select Save Pattern screen will be displayed. After saving the completed pattern data, it will return to the main standard screen.

8 . Verification on Pattern Data



* Verify the pattern data.

Use (▲ ▼) Check the sewing Operation sewing. The operations can also be tested in the middle of the data input process.

* If correction is needed, refer to the explanations for Correction Mode Group.

(3) Roundness Input

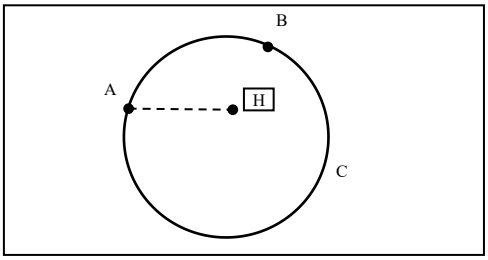
Operation Instruction

*Press the button (◯) to select Roundness Input。

*3 Point Input: Roundness Sewing starts from the current point (already input) and passes 2 newly-input points

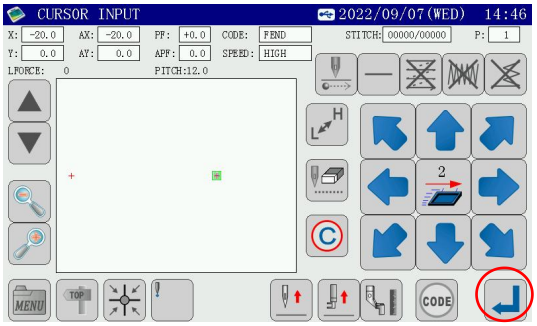
⚠ When roundness input process is completed, note the outer presser foot will shift to the starting point of the roundness

【Example】Input the data for the following pattern.



Operation Instruction

1 . Shift Needle to Point A under FEED Mode



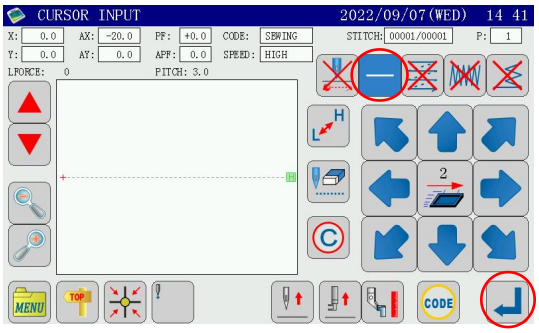
* Press in standard interface , then press ,(Pattern Design) to switch to the interface for data input. Set all necessary parameters and press the button for confirmation . After that, the Shifting Button Directory will be displayed.

* Check if [CODE]turn to FEED(shift)， if not, please press , [CODE] will change to FEED.

* Press Shifting Button to move Point A to be beneath the needle
(Shift to Point A under FEED Mode)
* Check the displacement.

* Press  to confirm.
(The Shift to Point A under FEED Mode has been completed)

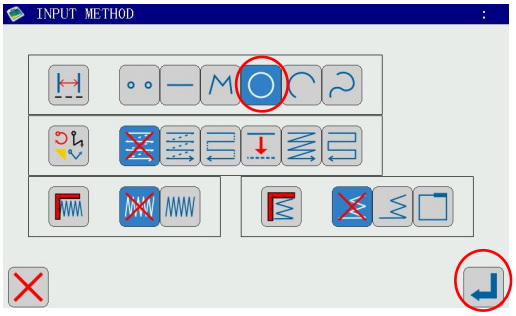
2 . Input method setting switching



* The amount of movement will be cleared.
* [CODE]will change to SEW.

* If display is not in 「roundness input」(not in 「straight line input」)，press  Change the display)the current sewing type will display on the button.

3 . elect the Roundness Input Directory

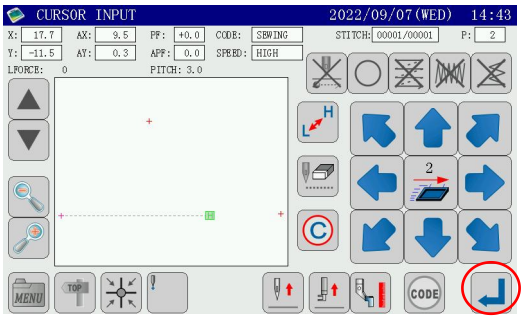


* Press .

* Then press  to confirm.

* The system will return to Shifting Button Directory.

4 . Confirm the Roundness Passes Point B to Point C



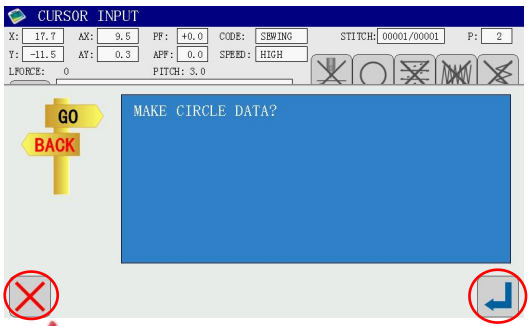
* Shift Point B to be beneath the needle by Shifting Button.

* Press  to confirm point B.

* Shift Point C to be beneath the needle by Shifting Button.

* Press  to confirm point C.

5 . Process the Data of Roundness



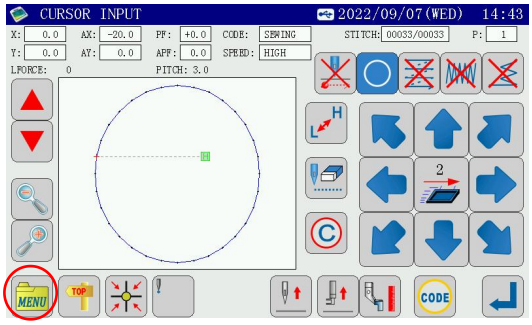
* The prompting message: [To process roundness data?] will be displayed.

* Press  to return to the interface for point C -input.

* Press  to process the data for roundness.
* The prompting message [Processing data] and [Please wait] will be displayed. (The roundness will be generated)

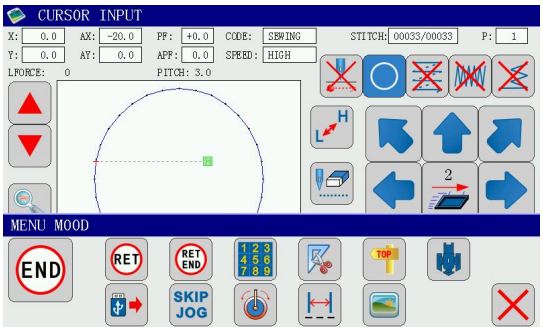
When the data processing process for the roundness is completed, note the outer presser foot will shift to Point A.

6 . Complete the Roundness Input Process.



* Press .

7. Reset to Zero and Complete Roundness Data Input Process.



* Press 

.
(The program for Resetting to Zero under FEED Mode and Ending will be generated)

Pay attention to the Stop Position of the needle as the outer presser foot will return to zero position.

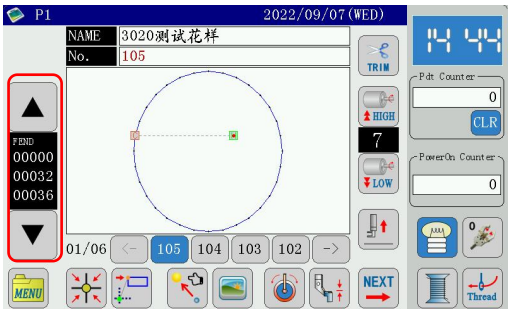
* The system will return to Standard Interface after the prompting message:[Processing Data] disappears

Note that the needle will rise to the Upper Stop Position.
If the needle does not stop at the Upper Stop Position, pay attention that it may drop before rising to the Upper Stop Position.

press  .

* The Select Save Pattern screen will be displayed.
After saving the completed pattern data, it will return to the main standard screen.

8 . Verification on Pattern Data



* Verify the pattern data.。
Use () Check the sewing Operation sewing. The operations can also be tested in the middle of the data input process.

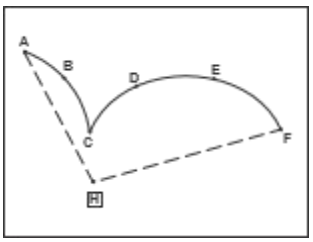
* If correction is needed, refer to the Explanations for Correction Mode Group.

(4) Curve Input

Operation Instruction

* Press the button ( ) to select Curve Input.
*Curve Sewing starts from current point (already input) and passes newly-input points (maximum 63 points can be input).
*The pattern can be separated by the Turning Points (Discontinuous Points) into many sub-curves and the system can continuously execute the sub-curves one by one.

【Example】Input the data for the following pattern.

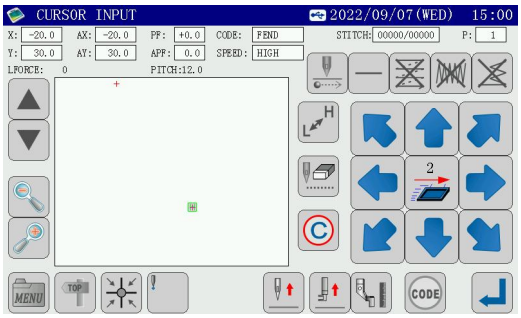


Set Point C as the Turning Point, the pattern can be separated into two curves.

Note: Please set the Stitch Length within the scope between 0.1 and 10.0mm.

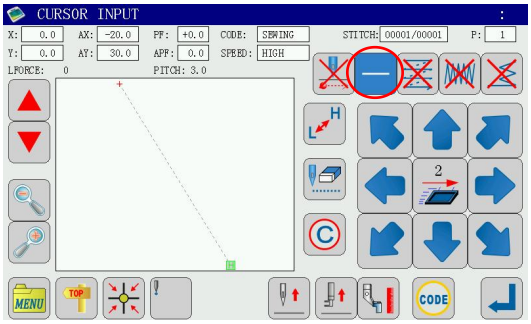
Operation Instruction

1. Shift the Needle to Point A under FEED Mode.



* Press in standard interface , then press ,(Pattern Design) to switch to the interface for data input. Set all necessary parameters and press the button for confirmation . After that, the Shifting Button Directory will be displayed.
* Check if [CODE]turn to FEED(shift)， if not, Press , [CODE] will change to FEED。
* Press Shifting Button to move Point A to be beneath the needle (Shift to Point A under FEED Mode)
* Check the displacement.
* Press to confirm. (The Shift to Point A under FEED Mode has been completed)

2 . Input method setting switching

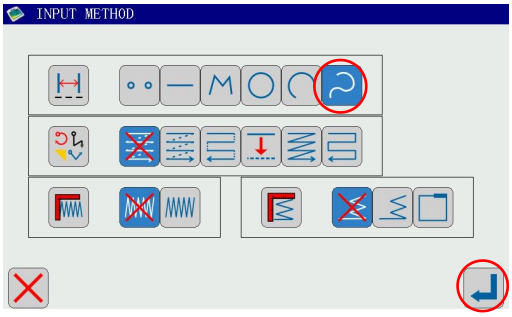


* The amount of movement will be cleared.

* [CODE]will change to SEW

* If display is not in 「roundness input」 (not in 「straight line input」), press Chang the display)the current sewing Type will display on the button.

3 . Select the Curve Input Directory

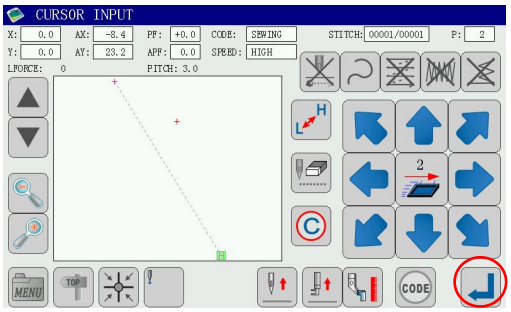


* Press .

* Then press to confirm.

*The system will return to Shifting Button Directory.

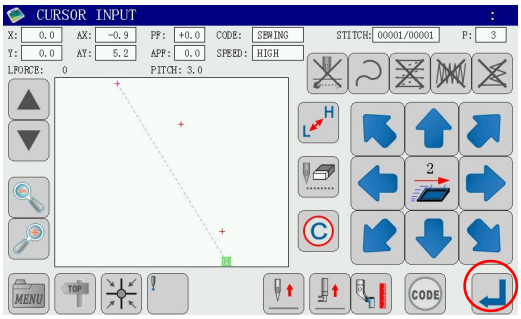
4 . Confirm Point B



* Shift Point B to be beneath the needle by Shifting Button.

* Press to confirm point B.

5 . Confirm Point C

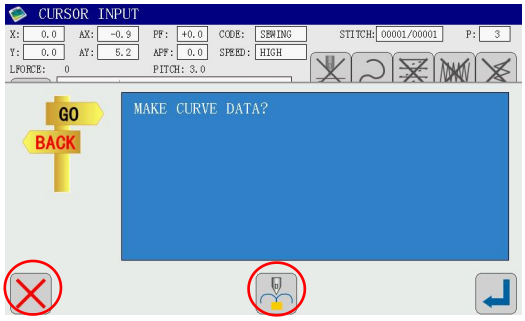


* Shift Point C to be beneath the needle by Shifting Button.

* Press to confirm point C.

* Press again to input turning point.

6 . Confirm Turning Point

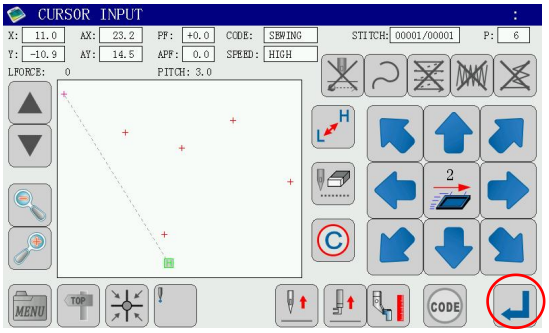


* The prompting message: [To process roundness data?] will be displayed.

* Press  return to the interface or Point C-input.

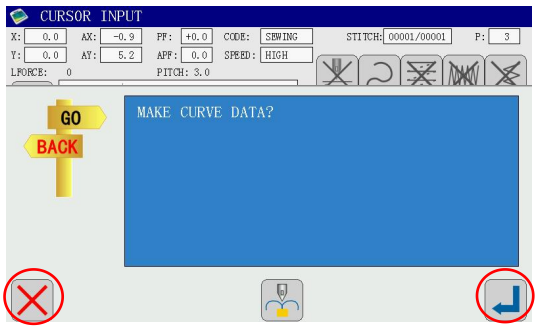
* Press  to set the current point as the Turning Point.

7 . Confirm Point D, E, F and Curve Input



* The system will return to Shifting Button Directory.
* Shift Point D to be beneath the needle by Shifting Button
* Press  to confirm point D.
* Shift Point E to be beneath the needle by Shifting Button
* Press  to confirm point E.
* Shift Point F to be beneath the needle by Shifting Button
* Press  to confirm point F. (Maximum 63 points can be input)
* Press  again after all points have been Input and confirmed.

8 . Process the Data of Curve.



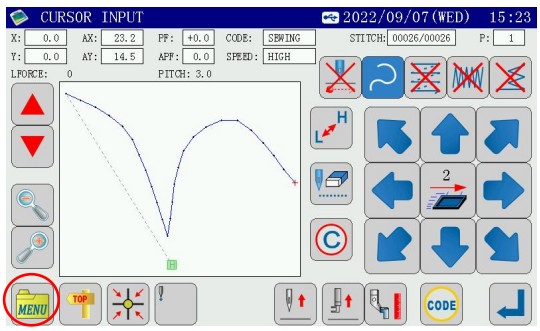
* The prompting message:
  [To process roundness data?]
  will be displayed.

* Press  return to the interface for last input.

* Press  to process the data for Curve input.

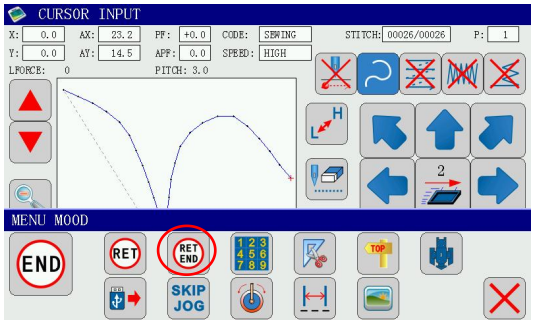
* The prompting message:
  [Processing data] and [Please wait] will be displayed.
  (The curves will be generated)

9. Complete the Curve Input Process.



* Press .

10 . Reset to Zero and Complete Curve Data Input Process.



* Press RET END .
(The system will return to Standard Interface after prompting)

The needle will rise to the Upper Stop Position.
pay attention that it may drop before rising to the Upper Stop Position.

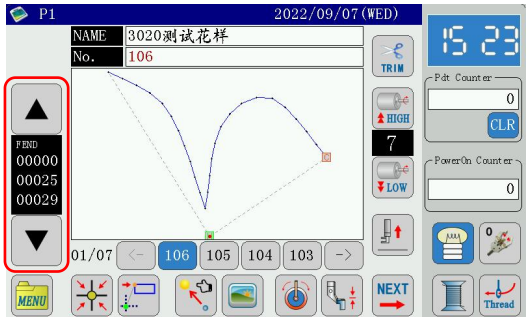
* message:[Processing Data] disappears

Press .

The needle will rise to the Upper Stop Position.
If the needle does not stop at the Upper Stop Position,pay attention that it may drop before rising to the Upper Stop Position.

* The Select Save Pattern screen will be displayed.
After saving the completed pattern data, it will return to the main standard screen

11 . Verification on Pattern Data



* Verify the pattern data.。

Use (▲ ▼) Check the sewing Operation sewing. The operations can also be tested in the middle of the data input process.

* If correction is needed, refer to the Explanations for Correction Mode Group.

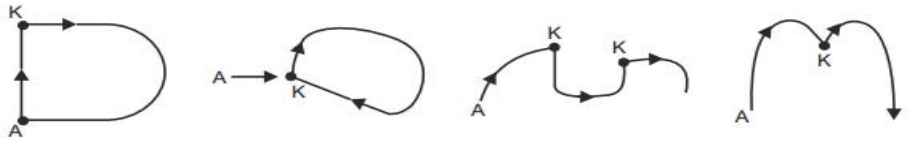
Note: If the distance between the start point and the end point of a curve is smaller then 0.5mm, a 「continuous figure」 can not be generated. The start and end point will automatically overlap.

Matters requiring attention when inputting curves:

As shown below, each pattern can be separated into sub-curves by the discontinuous point(s) -Point K, which is input as a Turning Point.

(The discontinuous point(s) of a strengthening stitches, same-direction repeated stitches

and opposite repeated stitches can be handled in the same way to be input as a Turning Point)

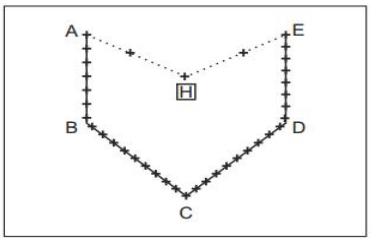


(5) Polygonal Line Input

Operation Instruction

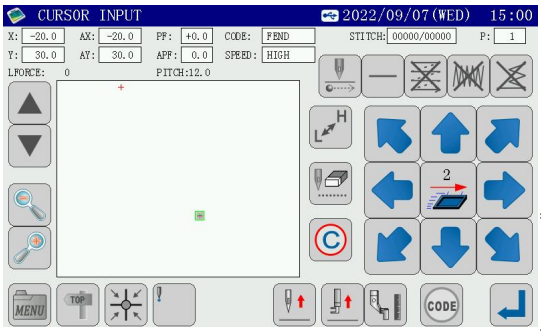
* Press the button () to select Polygonal Line Input.。
* Fold Line Sewing connects the current point (already input) and the newly-input points (maximum 63 points can be input) with straight lines.

【Example】Input the data for the following pattern.



Operation Instructions

1. Shift the Needle to Point A under FEED Mode



* Press in standard interface , then press ,(Pattern Design) to switch to the interface for data input. Set all necessary parameters and press the button for confirmation . After that, the Shifting Button Directory will be displayed.

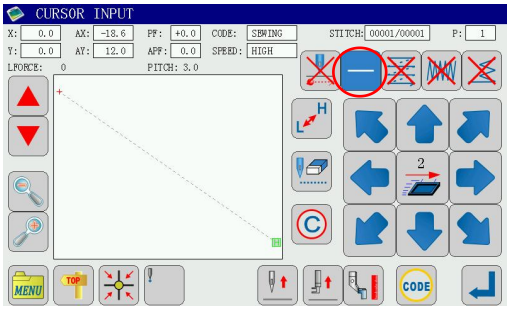
* Check if [CODE]turn to FEED(shift)， if not, press , [CODE] will change to FEED。

* Press Shifting Button to move Point A to be beneath the needle
(Shift to Point A under FEED Mode)

* Check the displacement.

* Press  to confirm.
(The Shift to Point A under FEED Mode has been completed)

2 . Input method setting switching

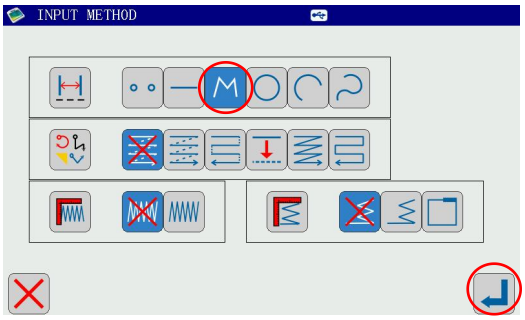


* The amount of movement will be cleared.

* [CODE]will change to SEW

* If display is not in 「polygonal line input」(not in 「straight line input」)， press  Chang the display)the current sewing Type will display on the button.

3 . Select the Fold Line Input Directory

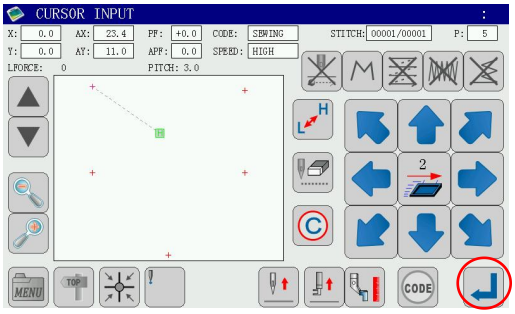


* Press  .

* Then press  to confirm.

* The system will return to Shifting Button Directory

4 . Confirm Point B, C, D and E.



* Shift Point B to be beneath the needle by Shifting Button

* Press  to confirm point B.

* Shift Point C to be beneath the needle by Shifting Button

* Press  to confirm point C.

* Shift Point D to be beneath the needle by Shifting Button

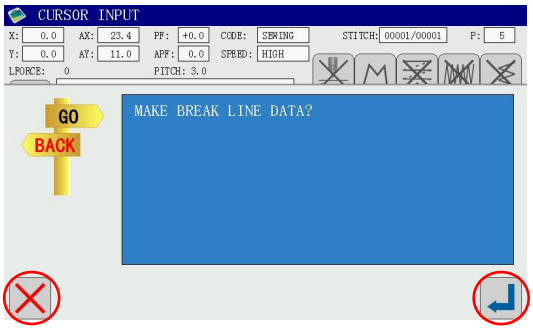
* Press  to confirm point D.

* Shift Point E to be beneath the needle by Shifting Button

* Press  to confirm point E.
(Maximum 63 points can be input)

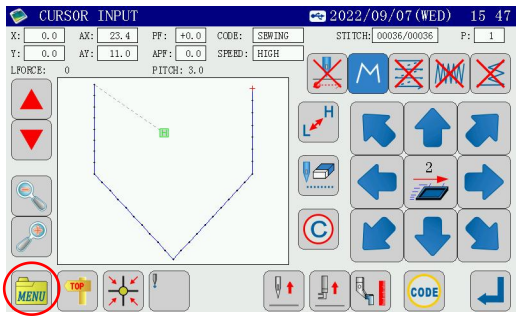
* Press  again after all points have been Input.

5 . Process the Data of Polygonal Line.



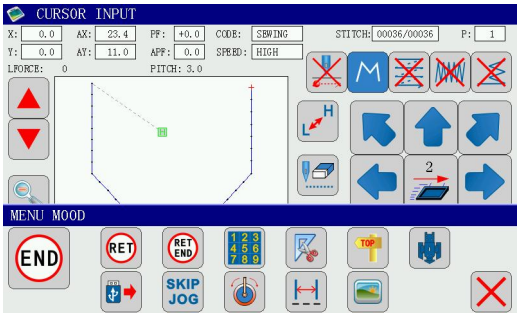
* The prompting message:
  [To process Polygonal Line data?]
  will be displayed.
* Press  to return to the interface for last input.
* Press  The Polygonal Line will be generate.
* The prompting message [Processing data] and [Please wait] will be displayed.

6 . Complete the Fold Line Input Process.



* Press  .

7 . Reset to Zero and Complete Fold Line Data Input Process



* Press  .
(The program for Resetting to Zero under FEED Mode and Ending will be generated)

Pay attention to the Stop Position of the needle as the outer presser foot will return to zero position.

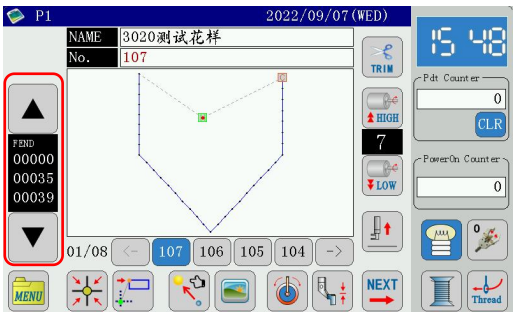
* The prompting message: [Please reset to Zero]will be displayed.

then press  .

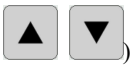
Note that the needle will rise to the Upper Stop Position.
If the needle does not stop at the Upper Stop Position, pay attention that it may drop before rising to the Upper Stop Position.

* The Select Save Pattern screen will be displayed.
After saving the completed pattern data, it will return to the main standard screen.

8 . Verification on Pattern Data



* Verify the pattern data.

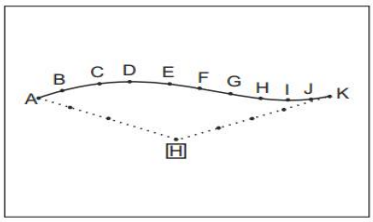
Use buttons() to check the Sewing Operations correct or not.
(The sewing operations can also be tested in the middle of the data input process after the button for confirmation has been pressed)

* If correction is needed, refer to the explanations for Correction Mode Group.

Note: If the distance between the start point and the end point of a fold line is smaller then 0.5mm, a「continuous figure」can not be generated. The start and end point will automatically overlap.

(6) Point input

【Example】Input the data for the following pattern.



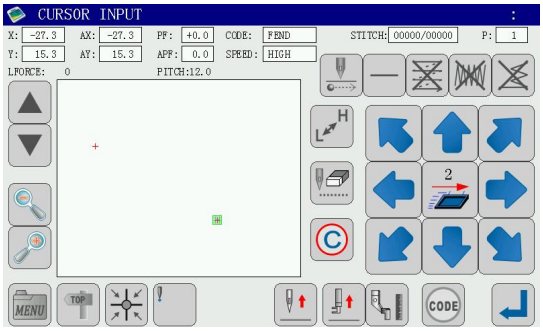
Operation Steps

1.Shift the Needle to Point A under FEED Mode.

* Press in standard interface 

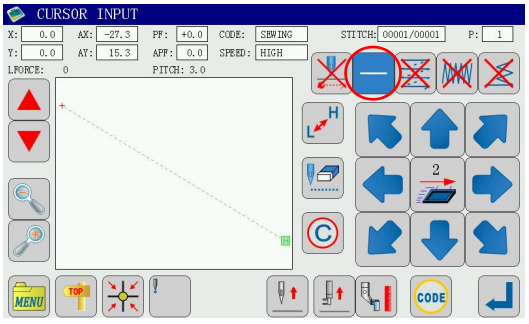
, then press 

,(Pattern Design) to switch to the interface for data input. Set all necessary parameters and press the button for confirmation . After that, the Shifting Button Directory will be displayed.



* Check if [CODE]turn to FEED(shift)， if not, press , [CODE] will change to FEED。
* Press Shifting Button to move Point A to be beneath the needle(Shift to Point A under FEED Mode)
* Check the displacement.
* Press  to confirm.(The Shift to Point A under FEED Mode has been completed)

2 . Confirm the shift to Point A under FEED Mode.

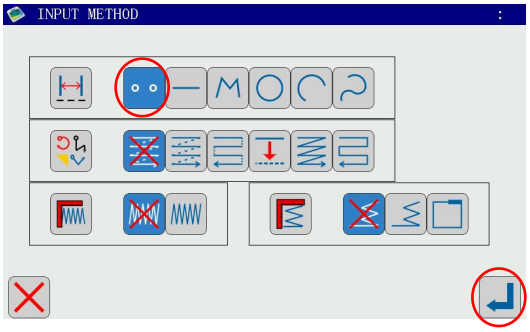


* The amount of movement will be cleared.

* [CODE]will change to SEW

* If display is not in  「Point Input」 (not in  「straight line input」)， press  Chang the display)the current sewing Type will display on the button.

3 . Select the Point Input Directory

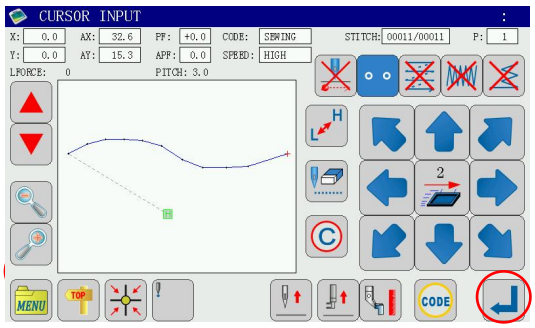


* Press  .

* Then press  to confirm.

* The system will return to Shifting Button Directory.

4 . Confirm all points from B to K



* Shift Point B to be beneath the needle by Shifting Button.
Note:The distance between adjoining points shall be kept within 12.7mm.

* Press  to confirm point B.
(The sewing to point B completed)

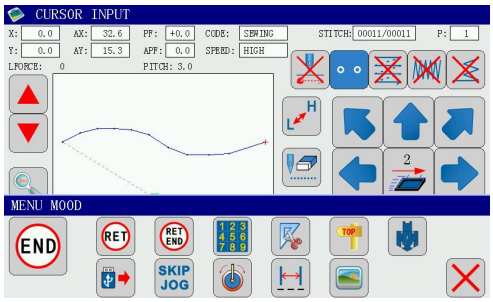
* Shift Point C to be beneath the needle by Shifting Button.

* Press  to confirm point C.
(The sewing to point C completed)

* Point D and K can be confirmed in the same way

* Press  .

5. Reset to Zero and Complete Dot Input Process



* Press RET END .
(The program for Resetting to Zero under FEED Mode and Ending will be generated)

Pay attention to the Stop Position of the needle as the outer presser foot will return to zero position.

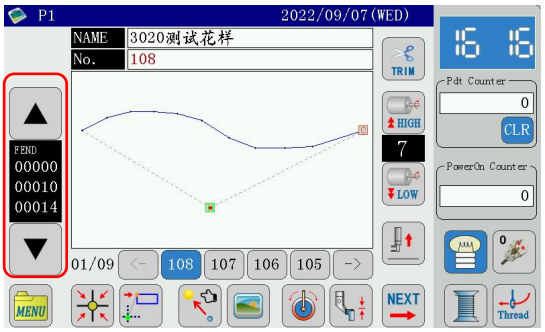
* The prompting message: [Please reset to Zero] will be displayed.

Then press .

Note that the needle will rise to the Upper Stop Position.
If the needle does not stop at the Upper Stop Position, pay attention that it may drop before rising to the Upper Stop Position.

* The Select Save Pattern screen will be displayed.
After saving the completed pattern data, it will return to the main standard screen.

6 . Verification on Pattern Data



* Verify the pattern data.

Use buttons(▲ ▼) to check the Sewing Operations Correct or not.
(The sewing operations can also be tested in the middle of the data input process after the button for confirmation has been pressed)

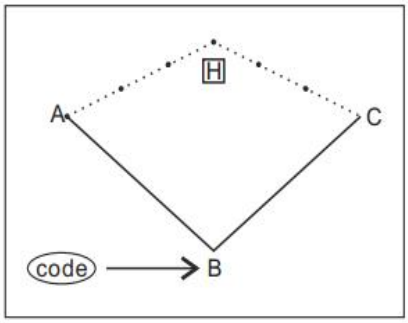
* If correction is needed, refer to the explanations for Correction Mode Group.

(7) Input Additional Functions

Operation Steps

* Press () to select the directory of Additional Function Input。
* Select the wanted additional function (s) from the List of Additional Functions and input it (them).

【Example】Input the data for the following pattern.



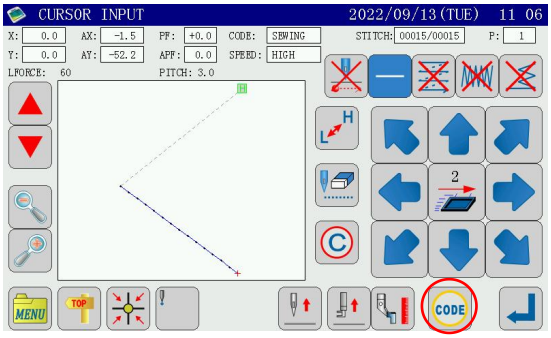
To input 「Needle Up Stop」function for point B, the point of the intersection of straight lines AB and BC.

Note: For Straight Line, Roundness, Circular Arc, Curve and Fold Line Patterns, the additional functions can not be added through [Additional Function Input],they can only be added through [Correction Input].

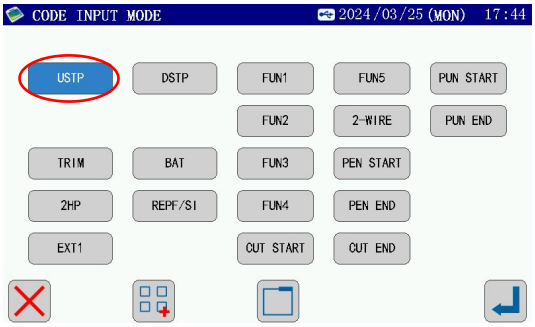
(As shown in the example, additional functions can be added for the intersection points of straight lines)

Operation Steps

1. Input Straight Line from Point A to B.
*Input Straight Line Pattern Data for Point A and B according to the instruction for Straight Line Input.
2. Input the Additional Function (Needle Up Temporary Stop).



* Press  .



* Press [USTP] .
(Refer to the following List of Additional Functions)

* Press  to confirm.
(Needle Stop Function has been input)

* The system will return to Shifting Button Directory.

3 . Input Straight Line from Point B to C.

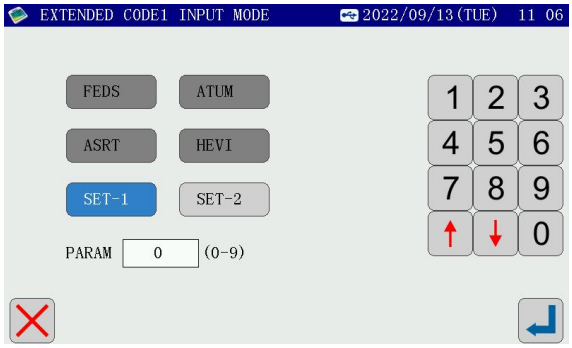
* Input Straight Line Pattern Data for Point B and C according to the instruction for Straight Line Input.

4 . Reset to Zero and Complete Additional Function Input Process.

Note: To enter into Additional Function Extension Directory, follow the steps below:

* Press ([EXT1]) then press  , the Additional Function Extension Directory will be displayed.

Additional Function Extension Directory



* Parameters can be set for the functions displayed in this page.
[FEDS] (FEED Speed)
[ASRT] (Automatic Start after Stop)
[SET-1] (setting 1)
[SET-2] (setting 2)

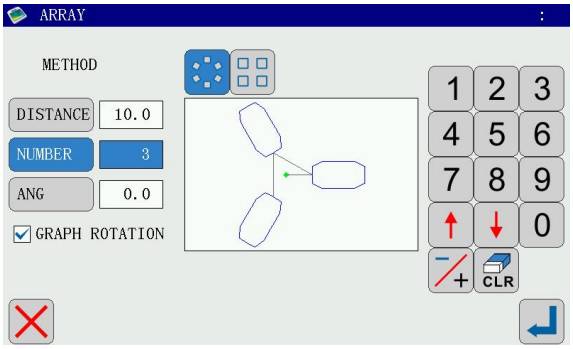
etc., the parameters can be set through numerical buttons.

[ATUM] (Material Thickness)
…three options have been provided as below:

 0 - 3 mm  3 - 6 mm  6 - 8 mm

[HEVI] (Material and Outer Presser Foot Weight)
…three options have been provided as below:
 - Standard  - Medium Weight  - Heavy

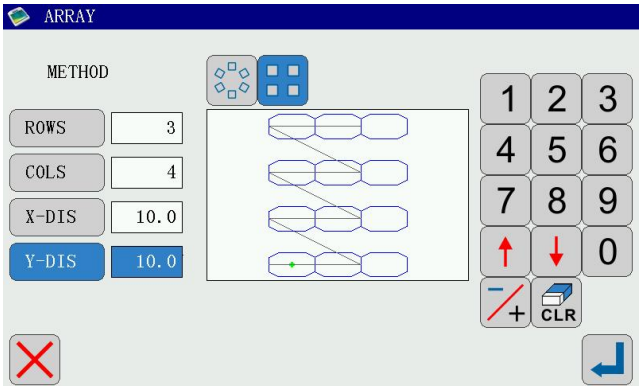
Note Press , Enter the screen for adding array patterns [B format only], Similar to the pattern exhalation function.



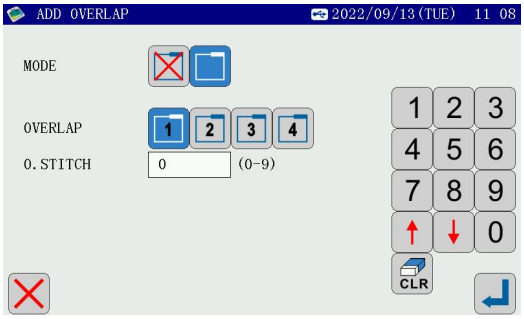
Set add array pattern method
There are rotation mode and table mode

The rotation mode is shown in the above figure.
DISTANCE： Set the distance between shapes（mm）
Numbers： Set the number of patterns to be added
Angle： Set the degree of angle between patterns

The table mode is as follows



Press  ， Add overlapping seams in the current sewing area ((Need to form a closed interval)) ， Enter the overlapping seam parameter setting screen.



* Mode selection

Press  not do overlapping

Press  do overlapping

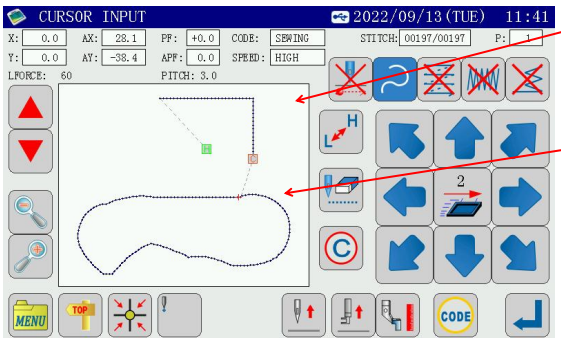
* Selection of overlapping seam times

* Input the number of repeated stitches

Note If the selected sewing area cannot form a closed pattern， It will prompt the message of adding overlapping seam failure

操作說明

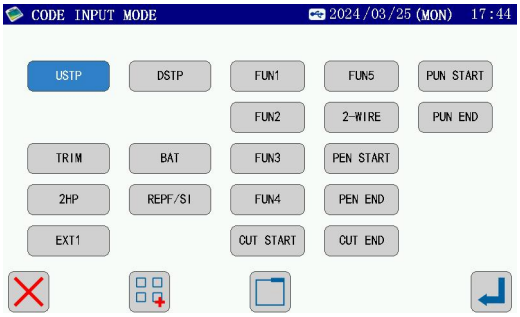
如打扮設計如下圖形



Sewing area 1 is not a closed pattern, cannot add overlapping seams

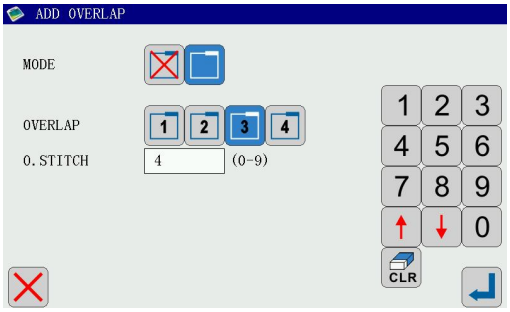
Sewing area 2 is a closed pattern, can add overlapping seams

* After the completion of sewing area 2 design，Press ，Enter the code design screen.



* Press , Enter the code design screen.

Overlap seam parameters



* Choose do overlapping seams here，

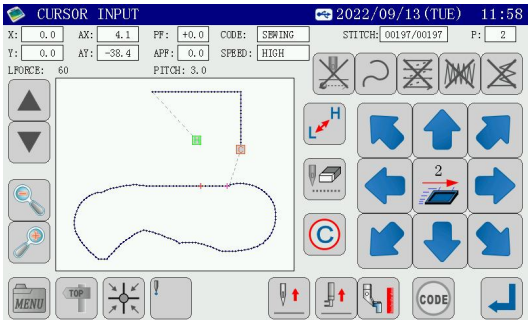
Press  .

* do 3 times overlapping seams，Press .

* setting overlapping stitches to 4.

Press Execute operation.

* The screen will return to the design screen.



* Area 2 has completed the operation of add overlapping seams.

Use the  to test and verify

LIST OF ADDITIONAL FUNCTIONS

NAME OF FUNCTIONS (ABBR)	DESCRIPTION	CODE OF FUNCTIONS	FUNCTION SETTING CODE
TRIM	TRIM THREAD	FUN 1	FUNCTION SETTING 1
USTP	Temporarily stop needle going up	FUN 2	FUNCTION SETTING 2
DSTP	Temporarily stop needle going down	FUN 3	FUNCTION SETTING 3
2 HP	Second Zero Position	FUN 4	FUNCTION SETTING 4
BAT	Fake sewing or the stitch length exceeds above 12.7mm.[Refer to details in the following page]	FUN 5	FUNCTION SETTING 5
FEDS(*)	FEED Speed	FUN 6	FUNCTION SETTING 6
ASRT(*)	Automatic Start after Stop	FUN 7	FUNCTION SETTING 7
ATUM(*)	Material Thickness	FUN 8	FUNCTION SETTING 8
HEVI(*)	Material/Outer Presser Foot Weight		

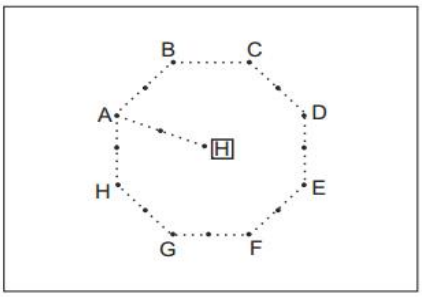
(*)Note: (*) Indicates the function is displayed in the Additional Function Extension Directory.

Functions of BAT (For fake stitch and the stitch of 12.7mm or above)

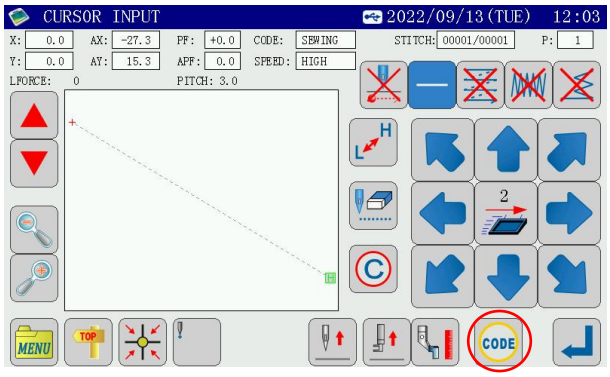
*This function is designed for the sewing patterns with the stitch length of 12.7mm or above.

*When this function is configured with the function of「Middle Presser Foot-BPF」, many special sewing patterns can be designed.

【Example】Input the data for the following pattern.



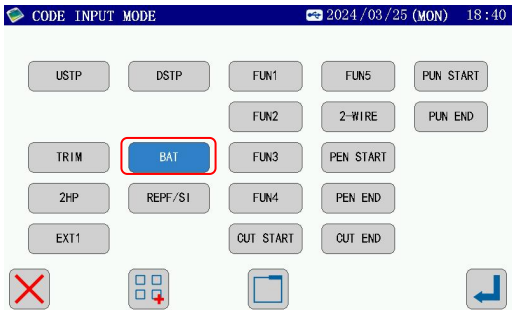
1 . After the data for FEED to Point A has been confirmed, input「BAT」Function.



* Press 

.

2 . Select the Function in the Additional Function Directory.

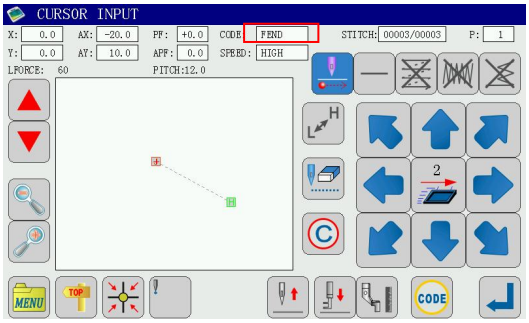


* Press BAT .

* Press  to confirm.
(BAT Function has been input)

* The system will return to Shifting Button Directory.

3 . Shifting Button Directory

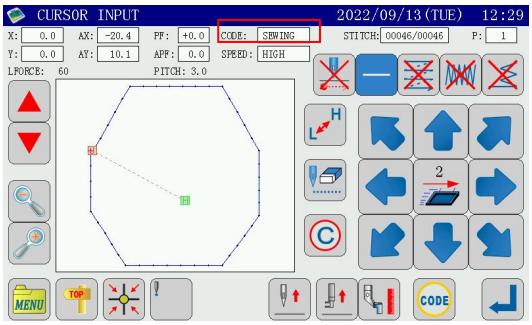


* After the 「BAT」function has been input, keep FEED input Mode instead of switching to SEW Input Mode.

* Input the data of FEED to Point B.

* After that, repeat「BAT」Function Input and FEED Input for all points from H to A.

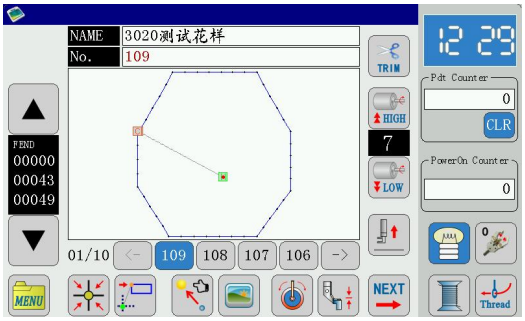
4 . Input Sewing Data before Zero Reset.



* Input sewing data before Zero Reset and Ending. In this case,1 stitch of Straight Line Sewing Data can be input.

Note: In order to automatically add the [TRIM] Function to the Reset and Ending Input, the Sewing Data must be input before Reset and Ending Input as the sewing data is the precondition of [TRIM] Function.

5 . Input Zero Reset and Ending



* Press  to complete the process.

Application Sewing Data Input

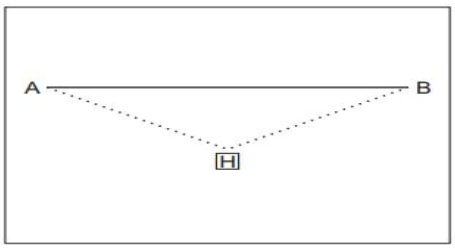
This function includes Start and end Backstitch, Repeated Stitches, Strengthening Stitches and Z-shaped Stitches. The configuration of Application Sewing Data Input with Basic Sewing Data Input can make the pattern input process easier. (Refer to [10] List of Sewing Pattern combination table)

Note: Under Dot Input Mode, the Application Sewing Data Input function can not be used.

Description	Related Button
Backstitch	Start and end Backstitch Overlapping Stitch
Repeated Stitches	Same-direction Repeated Stitches (FEED) Same-direction Repeated Stitches(SEW) Opposite Repeated Stitches (FEED) Opposite Repeated Stitches (SEW)
Strengthening Stitch	
Z-shaped stitch	

(8) Start and end Backstitch Input

【Example】Input the data for the following pattern.

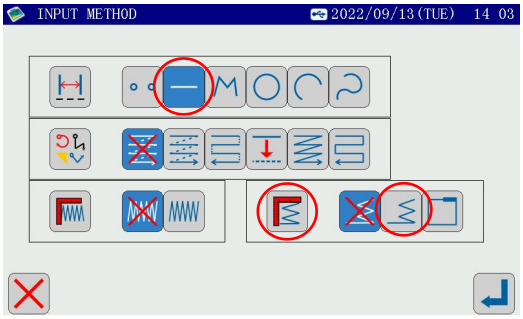


To input three N-shaped back stitches in the start and end points of a straight line respectively.

(The bold line indicates the start and end Back stitches)

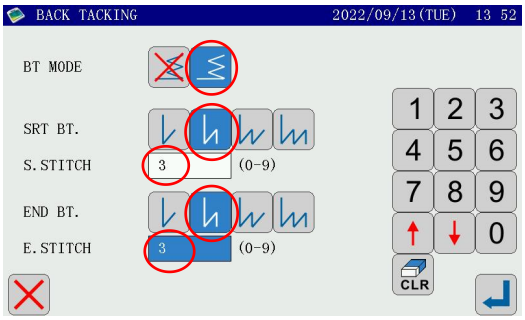
Operation Instruction

1 . Select the Sewing Type



* Confirm the FEED from Zero Position to Point A according to the instructions of Straight Line Input. The Sewing type Setting Interface will be displayed.
* Press the button for Straight Line Input  .
* Then press the button for Backstitch .
* Then press the button for Backstitch Detail  .

2 . Settings for Backstitch Details



* Backstitch Details can be set under this interface.

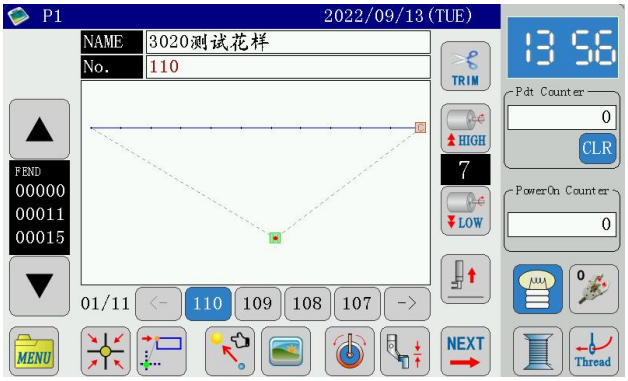
Press  to select the sewing type Start and end Backstitch.

Press (N-shaped Stitch) and set 3 as the value of Start Back stitch number. Repeat the same operation for End Back stitch Setting.

* Press  to confirm.
* The system will return to the Sewing Type Directory.
* Press  to confirm.
* The system will return to the Sewing Type Directory.
* Confirm Point B according to the instruction of Straight Line Input.Straight Line Sewing process will be carried out. (The data for Start and End Backstitch Straight Line Sewing Pattern will be processed
* Press  to end the process.

3 . Verification on Pattern Data

*The data input process for Start and End Backstitch Straight Line Sewing has been completed.



Note: Regarding the shape of Back stitches.

V-shaped Backstitch, only perform backstitch sewing once.

N-shaped Backstitch, perform backstitch sewing twice.

W-shaped Backstitch, perform backstitch sewing for three times.

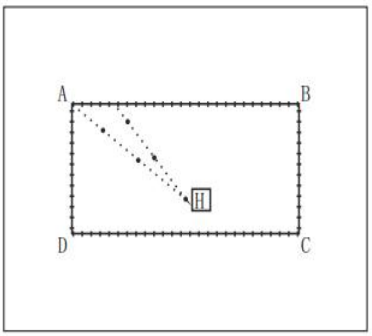
M-shaped Backstitch, perform backstitch sewing for four times.

Note: Regarding the shape of Back stitches

Press [s.stitch] start back stitch number or [e,stitch] to make it highlighted and set the value by [↑] or [↓]

Note: In the Shifting Button Directory, press Backstitch Setting Button, the interface for setting Backstitch Details can also be displayed.

(9) Overlapping Stitch Input



To add Overlapping Stitches to the end section of the Rectangular Polygonal Line Input.
(Times for overlapping: once; Number of overlapping stitches: 3)

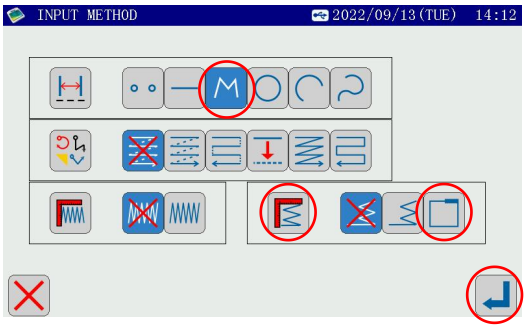
Overlapping Stitches can only be added to the continuous patterns processed by [Polygonal Line Input], [Roundness Input],[Circular Arc Input] and [Curve Input].

Overlapping Stitches can not be added to the discontinuous patterns processed by [Straight Line Input].

Overlapping Stitches can not be added to the discontinuous patterns processed by Polygonal Line Input or Curve Input and moreover, only one place of a pattern can be added with Overlapping Stitches.

Operation Instruction

1 . Select the Sewing Type Overlapping Stitches



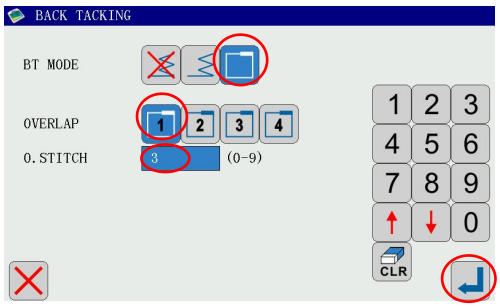
* Confirm the FEED from Zero Position to Point A according to the Operation Instruction of Fold Line Input. The Sewing Type Directory will be displayed.

* Press the Fold Line Input Button  。

* Then press the Button for Overlapping Stitch Setting  。

* Then press the button for Backstitch Detail  .

2 . Settings for Backstitch Details



* Set detailed content in this screen.

Press  to select backstitch type.

Press  set 1 as the times of Overlapping.

set 3as Overlapping Stitch number.

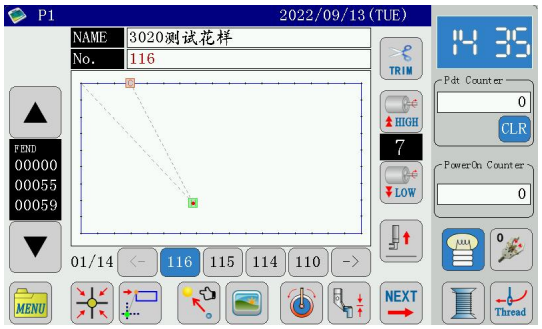
* Press  to confirm.
* The system will return to the Sewing Type Directory.

* Press  to confirm.
*The system will return to the Sewing Type Directory.

*Confirm Point B, C, D and A according to Fold Line Input Operation Instruction. The Fold Line Sewing Pattern will be processed.(The Overlapping Stitch Fold Line Sewing Pattern will be processed)

* Press  to end the process.

3 . Verification on Pattern Data.



* The Data Input Process for Rectangular Fold Line Sewing Pattern has been completed.

Note: Times for Overlapping Stitch Sewing:

The numerical buttons  and are used to set the number of times for performing Overlapping Stitch Sewing.

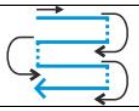
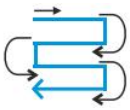
Note: Regarding Overlapping Stitch Number:

The parameter means the number of stitches for the overlapping section.(The value can be set within the range between 0 and 9.)

Note: When the distance between the start and end points of a Fold Line is set to be below 0.5mm, continuous pattern can not be generated.

(When the distance between the start and end points is below 0.5mm, a continuous pattern can not be generated as the start and end points will overlap automatically.

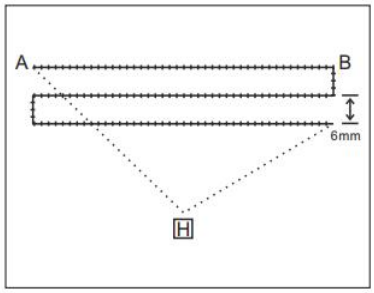
(10) Multiple seam input

Type of Overlapping Stitch	FEED or SEW Mode	Related Button	Displayed Pattern	Explanation
Same-direction Multiple-stitch	FEED Mode			After the first line [Sewing] is cut, [FEED Mode] jumps back to the starting point of the second line to do the same [Sewing].
	SEW Mode			After the first line [sewing], the thread is not cut, and the sewing point of the second line is continuously stitched to make the same direction continuous [sewing].
Opposite Repeated Overlapping Stitch Sewing	FEED Mode			After the first line [sewing] is cut, [Feed Mode] jumps to the seam point of the second line to reverse [sewing].
	SEW Mode			After the first line [sewing], the thread is not cut, and the sewing point of the second line is continuously stitched to make the reverse continuous [sewing].

(The design and (broken line) in the pattern indicates [FEED].

(The design and (real line) in the pattern indicates [SEW].

【Example】Input the data for the following pattern.

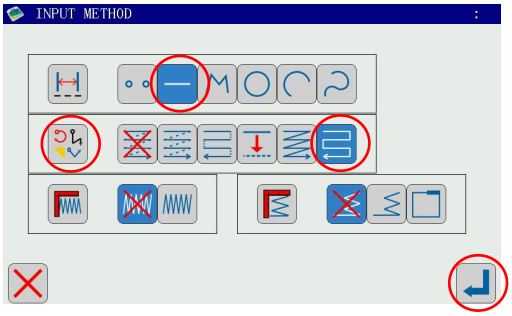


Please input Straight Line Continuous Opposite Multiple –stitch Sewing Pattern. (Distance between stitch lines: 6mm; times for Multiple-stitch Sewing: 3; Direction: Right side)

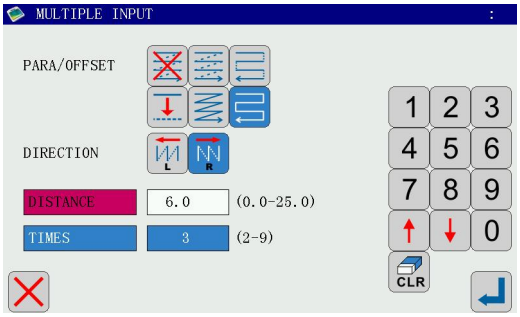
Operation Instruction

1 . Select the Sewing Type Multiple Stitches

* Confirm FEED from Zero Position to Point A according to Straight Line Input Instruction. The Sewing Type Directory will be displayed.
* Press the button for Straight Line Input  .
* Press Multiple-stitch Sewing Button  .
* Press the button for setting Multiple-stitch Details  .



2 . Detailed settings for multiple seams

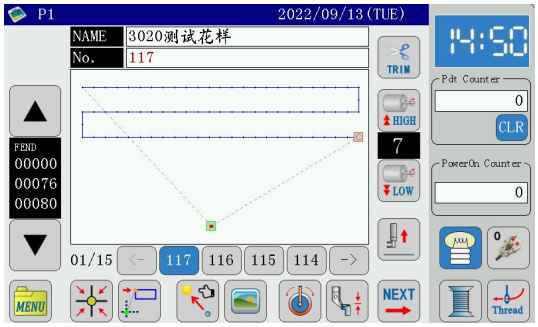


* Details can be set under this interface.

Press  to set the type of stitch Continuous Opposite Multiple - stitch and press  the direction at right side of the stitch line,and then set 6.0 as the distance between stitch lines and 3 as the times for performing Opposite Multiple-stitch Sewing.

* Press  to confirm.
* The system will return to Shifting Button Directory.
* Press  to confirm.
* The system will return to Shifting Button Directory.
* Confirm Point B according to Straight Line Input Instruction. The Continuous Opposite Multiple-stitch Straight Line Sewing Pattern will be generated.
* Press  to end the process.

3 . Verify the Pattern Data



* Continuous reverse multiple seaming of straight stitching is completed.

Note: Regarding the direction of Multiple-stitch

To make multiple stitches to the left side of the entered stitching direction, press the key .

To make multiple stitches on the right side of the entered stitching direction, press the key .

Note: Regarding the distance between stitch lines

[Distance] means the distance between two adjoining multiple-stitch lines. The value is ranged between 0.0mm and 20.0mm.

When setting the distance, press the related button to make it highlighted and then set the value by numerical buttons or arrow keys:

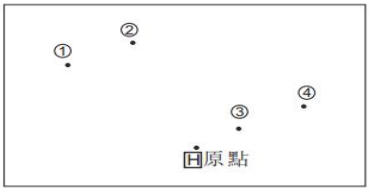
Note: Regarding times of Multiple-stitches.

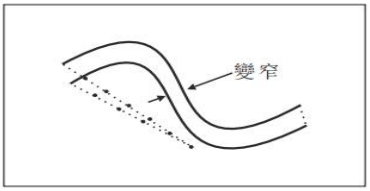
[Times] means the number of times for performing Multiple-stitch Sewing. The value is ranged between 2 and 9. When setting the number of times, press the related button to make it highlighted and then set the value by numerical buttons or arrow keys: and .

Note: In the Shifting Button Directory, press Multiple-stitch Setting Button, the interface for setting Multiple-stitch Details will also be displayed.

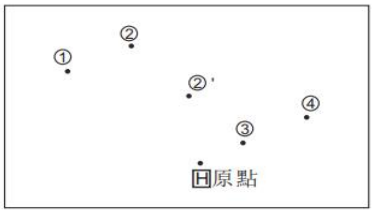
Note: (A) Curve and Multiple-stitch Input Combined Pattern

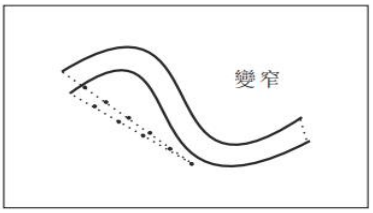
As shown in the left diagram below, after the FEED operation from Zero Position to Point ① has been input, enter the data for the curve which passes Point ②, ③ and ④ and then add Multiple-stitch to the curve ([Distance] 10mm, [Times] 2), the right-side pattern will be generated. From the pattern, we can see that in some parts, the distance between the multiple-stitch lines is narrower than the remaining parts.



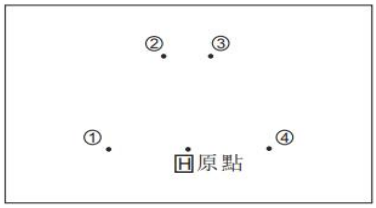


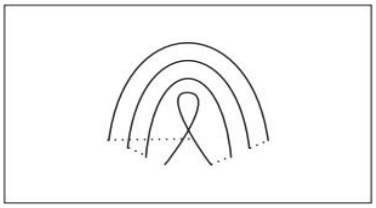
If a uniform gap is required, we can add a new point ② between the original Point ② and ③ . The following pattern can be generated:



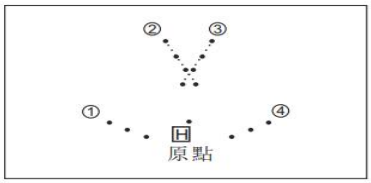


As shown in the left diagram below, after the FEED operation from Zero Position to Point ① has been input, enter the data for the curve which passes Point ②, ③ and ④ and then add Multiple-stitch to the curve ([Distance] 8mm, [Times] 4), the right-side pattern will be generated. From the pattern, we can see that the forth Multiple-stitch line is deformed.





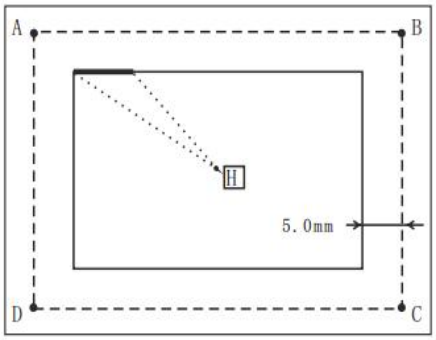
The reason is that the imaginary point obtained from the calculation of roundness has become the intersection point of multiple stitches.



Therefore, the different settings of [Distance], [Times] and Curve Inputs will lead to different effects of Multiple-stitches. Please have a try.

(11) Strengthening Stitch Input (Attached with Overlapping Stitch)

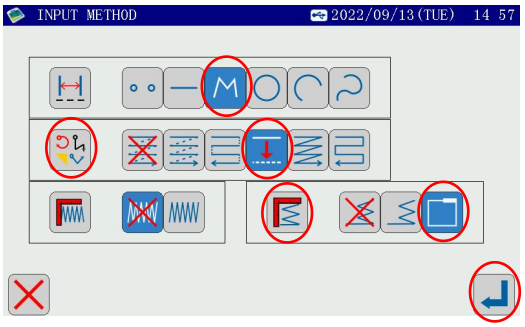
【Example】Input the data for the following pattern.



To input Strengthening-stitch Sewing Pattern through Fold Line Input attached with Overlapping-stitches.
(Distance between Strengthening-stitch lines: 5.0mm; Direction:Right Times for performing Overlapping-stitch Sewing: 1; Overlapping-stitch Number: 3.)
(——— Bold line indicates the distance for Overlapping stitch)
(- - - - - - Broken lines indicate the lines of the pattern)

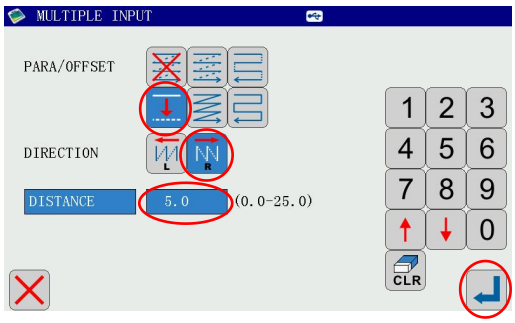
Operation Instruction

1 . Select the Sewing Type



* Confirm the FEED from Zero Position H to Point A according to the Polygonal Line Input Instruction. The Sewing Type Directory will be displayed.
* Press the button for Polygonal Line Input  。
* Press the Strengthening Stitch Input Button  。
* Press the Overlapping-stitch Input Button  。
* Press the button for Setting Strengthening-stitch Details  。
* Then press the button for Backstitch Detail  。

2 . Set Strengthening-stitch Details



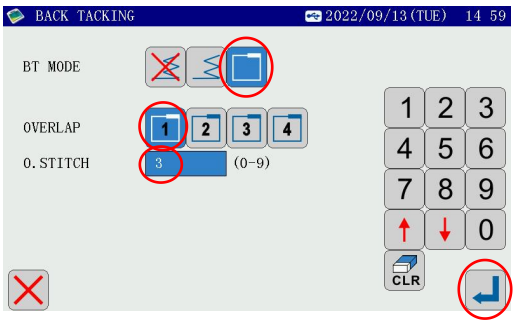
* Set the details of Strengthening-stitch under this interface.

First select the category key  and press the key , then set the distance = 5. 0.

※ The Distance between Strengthening-stitch lines is ranged between 0 to 20mm. The unit is 0.1mm.

* Press  to confirm.

3 . Setting Backstitch Details.



* Set the Overlapping-stitch Details under this interface.

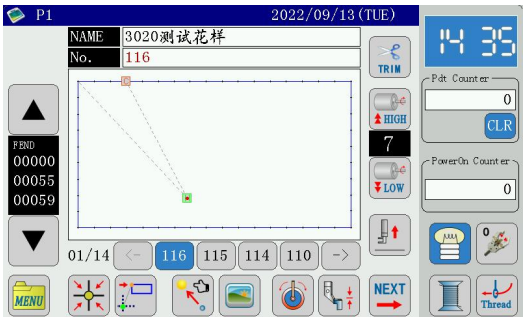
Press  to select Overlapping-stitch Sewing Type, then press  to set 1 as the times for performing overlapping-stitch Sewing, set 3 as the Overlapping-stitch number.

* Press  to confirm.
* The system will return to Sewing Type Directory.

* Confirm Point B, C, D and A according to Polygonal Line Input Instruction. The Polygonal Line Pattern will be generated.

* Press  to end the process.

4 . Verify Pattern Data

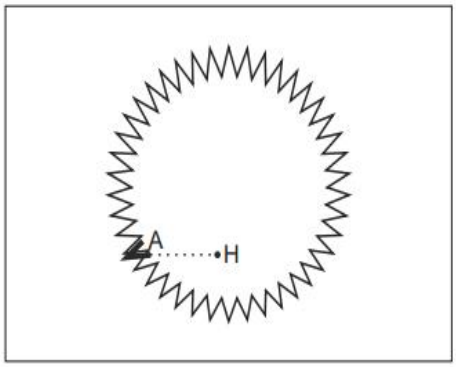


* The competed Strengthening-stitch pattern will be displayed.

Note: In the Shifting Button Directory, press Multiple-stitch Setting Button, the interface for setting Multiple-stitch Details will also be displayed.

(12) Z-shaped Stitch Input (Attached with Overlapping-stitch)

【Example】Input the data for the following pattern.

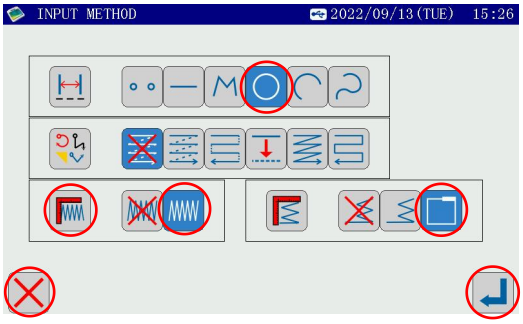


To input Z-shaped Stitch Sewing Pattern through Roundness Input attached with Overlapping-stitches.
(The Amplitude (width) of Z-shaped Stitch: 5.0mm, Pitch: 3.0mm; Direction: Left side; Times for performing)

(Bold line indicates Overlapping-stitch).

Operation Instruction

1 . Select the Sewing Type



* Confirm the FEED from Zero Position H to Point A according to Polygonal Line Input Instruction. The Sewing Type Directory will be displayed.

* Press Roundness Input Button  .

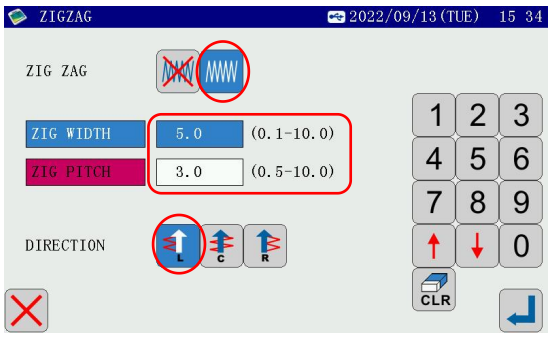
* Press Z-shaped Stitch Input Button  .

* Press Overlapping-stitch Input Button  .

* Press the button for setting Z-shaped Stitch  .

* Then press the button for Backstitch Detail  .

2 . Set the Details for Z-shaped Stitch.



* To set Z-shaped Stitch Details under this interface.

Press  to set the sewing type Z-shaped Stitch, and set 5.0 as the Amplitude (width) and 3.0 as the Pitch.

press  to set the Swing Direction for Z-shaped Stitch.

* The Amplitude (width) of Z-shaped Stitch is ranged between 0.1-10.0mm. The unit is 0.1mm.

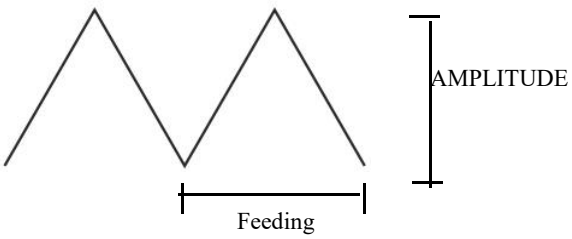
※The pitch of Z-stitch ranged between 0.5~10.0 The unit is 0.1mm.

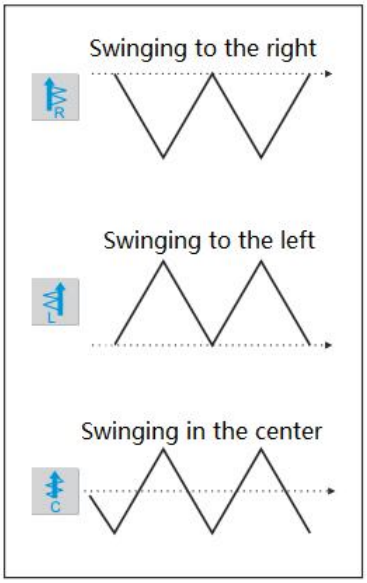
(Refer to the next page for explanation on the L C R Amplitude,Pitch and Swing Direction of Z-shaped Stitch)

* Press  to confirm.

Note: To set the swing width and the feed amount, first press the swing width key and the feed key to reverse them, and then use the number keys or the ↑, ↓ mark keys to set them.

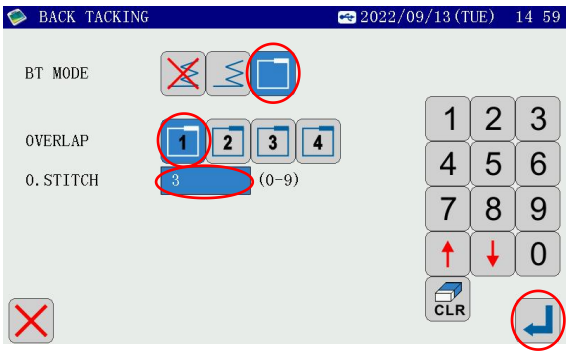
Explanations on Amplitude and Pitch of Z-shaped Stitch





Note: When the value of Swing Direction is Set as [Center] and at the same time the value of [Amplitude] is set as 0.1mm, Z-shaped Stitch Pattern can not be processed.
To generate a Z-shaped Stitch Pattern, the current value of Swing Direction [Center shall be changed to other direction, or the value of [Amplitude] shall be increased to be above 0.2mm.

3 . Setting Backstitch Details



* The Overlapping-stitch Details can be set under this interface.

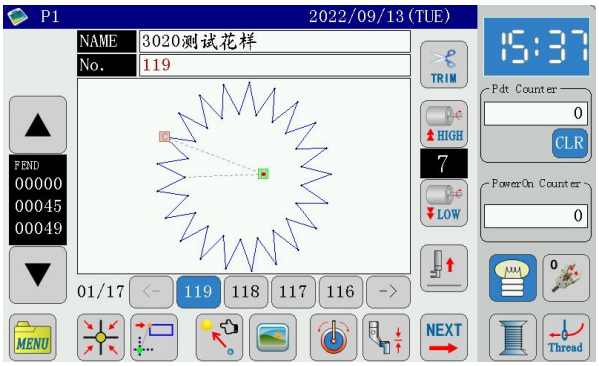
Press to set the sewing type -Overlapping Stitch,

Press to set 1 as the times for performing Overlapping -stitch Sewing and set 3 as the Overlapping-stitch Number.

* Press to confirm.
*The system will return to Sewing Type Directory.

* Press to confirm.
* The system will return to Shifting Button Directory.
* Confirm Point B and C according to Roundness Input Instruction. The Roundness Sewing Pattern will be generated.
* Press to end the process.

4 . Verify Pattern Data



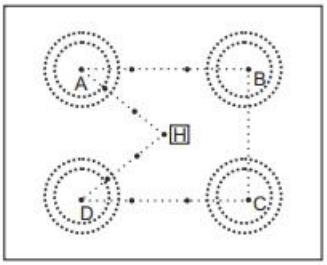
* completed Z-shaped Stitch Roundness Sewing Pattern attached with Overlapping Stitch will be displayed.

Note: In the Shifting Button Directory, press Multiple-stitch Setting Button, the interface for setting Multiple-stitch Details will also be displayed.

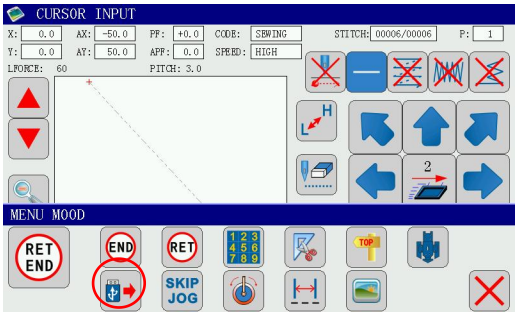
6、Call out Function

* During the Pattern Input Process, any pattern stored in the Internal Memory can be called out and inserted into the pattern being input to generate a new pattern.。
* The FEED processes at the beginning and end can be deleted.

【Example for Call out Function】
To input the pattern shown below, the Call out function can be utilized to call out the completed Double Round Pattern  and combine it with FEED Data Input.



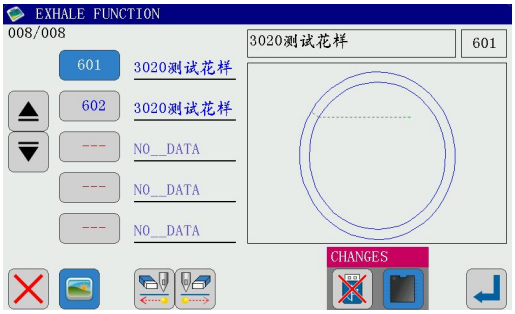
(1) Input the FEED from Zero Position H to Point A.
(2) The Interface for Call out Function is displayed.



* Press  under the Shifting Button.

* Then press  .

(3) Select the pattern No. to be called out automatically according to the Pattern



* Press the pattern number be called out to highlight it and press the button  .

* The screen will return to the move key input screen.

Note： The "FEED" of the pattern data to be called out can be selected in the following options.

 ： To delete the FEED Input executed before sewing process.

 ： To delete the FEED Input executed after sewing process.

 ： To keep the FEED Input executed before sewing process.

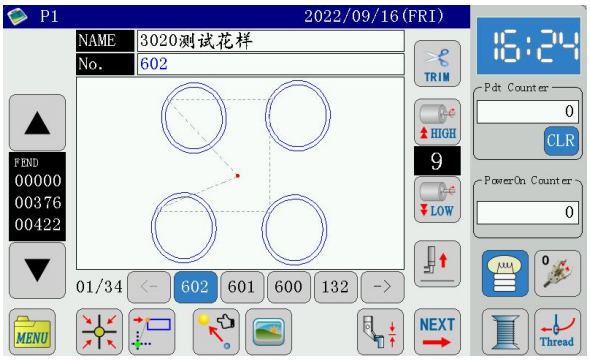
 ： To keep the FEED Input executed after sewing process.



Pay attention to the Stop Position of the needle as the outer presser foot will shift automatically according to the Pattern which has been called out.

(4) To call out B、C and D one by one in the same way.

(5) Verify Pattern Data



7、Correction Mode Group

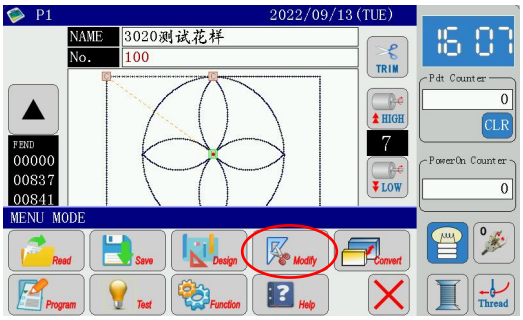
(1) main Function of Correction

	Function	Button	Content of Correction	Detailed Setting
Stitch length	Shift the stitch start point		Change the position of stitch start point	 _2nd origin move，start point move  _2nd origin move，start point fixed  _2nd origin fixed，start point move
	Delete		Delete the specified stitch	 Absolute deletion of specified number of stitches  Relative deletion of specified number of stitches  Delete all stitches after the specified location
	Insert stitches		To insert 1 stitch to the specified position	 absolute to insert 1 stitch  relative to insert 1 stitch  to insert 1 stitch with the same conditions
	Correct stitch position		To correct the position of 1 stitch To correct the position of 1 section	 <position after correct> fixed  <position after correct>follow  <position after correct>follow
	Shift a section within the specified range.		Shift the section within the specified range	 before and after shifting.  insert stitches into the specified section.
	Correct the Section		Correct the Straight line, Polygonal line, Circular arc, Curve.Z-shaped Stitch and FEED Input between two specified points.	——
	Segment insertion		Insert a new drawing at a specified location	——
	Correct stitch length		Correct the stitch length within the specified range	 Correct the stitch length within specified range.  Correct all stitches after a

				specified point.
	Medium Pressure Foot Correction		Modify the height of mid-pressure foot at specified position	___
	Thread tension correction		Specify position gripper tension thread correction	___
 Speed			Correct the speed of all points after a specified point.	 Correct the speed of specified number of stitches.  Correct the speed of all stitches after a specified point.
 Additional Functions			Insert or delete additional functions at the specified posit.	 Insert  Delete

(2) Access to Correction Mode Group From Standard Interface

1、From Standard Interface.

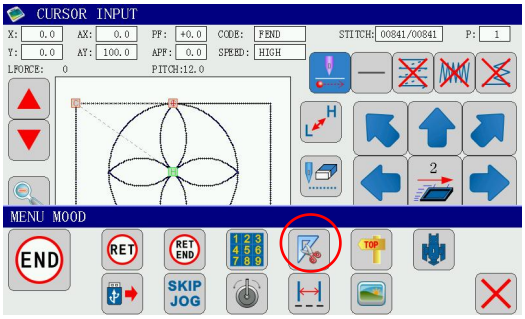


* Press 

n the Standard Interface then 

(Pattern Correction) to enter into Correction Mode Group.。

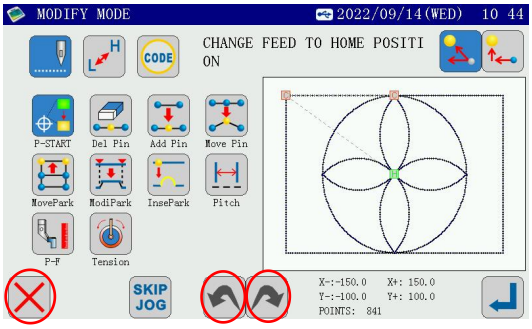
2、Access to Correction Mode Group From Shifting Button Directory



* Press 

in the Shifting Button Directory of Correction Mode and then press  (Pattern Correction) to enter into Correction Mode Group.

(3) Exit from Correction Mode Group



* After confirming Correction Operation,

Press  to end the process and exit from Correction Mode Group.

 : to cancel the last Correction Input return to the original state

 : to repeat the last Correction Input and return to the original state.

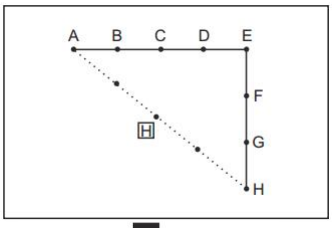
(4) Return to Zero-point under FEED Mode after correction

1、The Mode

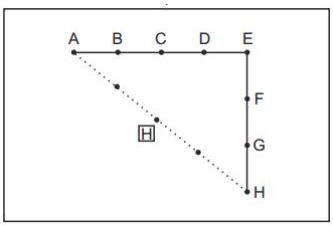
Direct mode FEED to the origin point  （Press  to choice）

Add mode FEED to the origin point.  （Press  to choice）

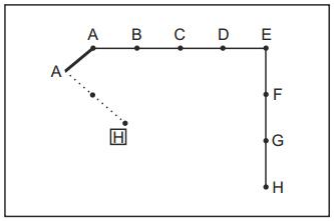
2、Description



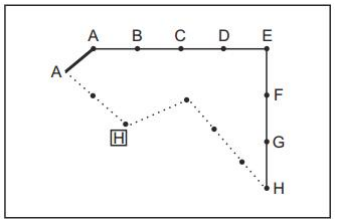
For example: As shown in the left diagram: 1 stitch needs to be inserted into Point A'。



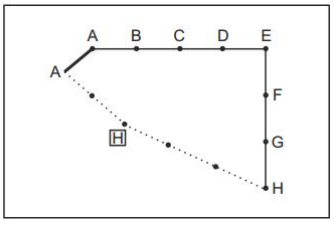
Insert the stitch into Point A' in the left diagram.



After a stitch is inserted at Point A', the points ranged between Point B and H shift
accordingly. The FEED Setting from Point H to Zero Position shifts Accordingly at the same time.
To select the FEED Setting after correction, press one of the following two buttons:



[FEED to Zero Position with Insertion]



[FEED to Zero-point under Direct Mode]

Note: If the FEED Input from the last stitch point to Zero Position contains Additional Function Input before correction, the FEED Setting added after Additional Function Input will change accordingly.

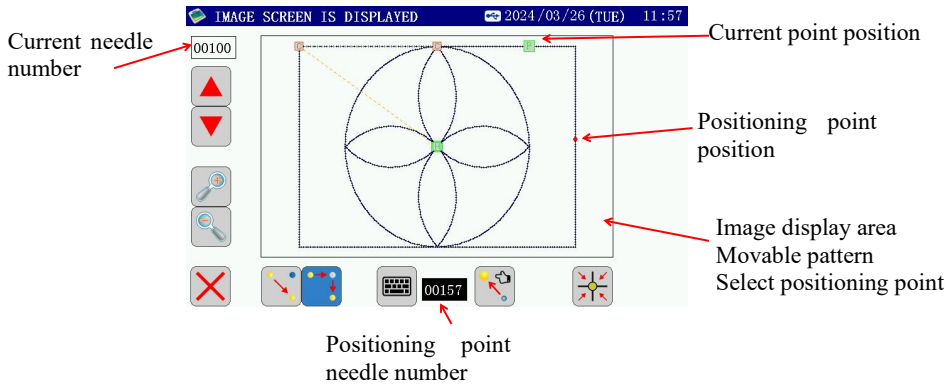
(5) Quick positioning of pattern

In the design module, correction module, and conversion module， Press ,Enter the pattern quick positioning screen.

Especially in the correction (conversion) module, using the pattern positioning function can easily correct (convert) pattern data.

The following is an example introduction using the pattern screen of the correction module. In the inch motion screen， Press ,Enter the pattern quick positioning screen.

* Quick pattern positioning screen



: Press inch to move forward

: Press inch to move backwards

: Press pattern positioning

: Press the pop-up numeric keypad and manually enter the positioning point number

: Press to display zoom in

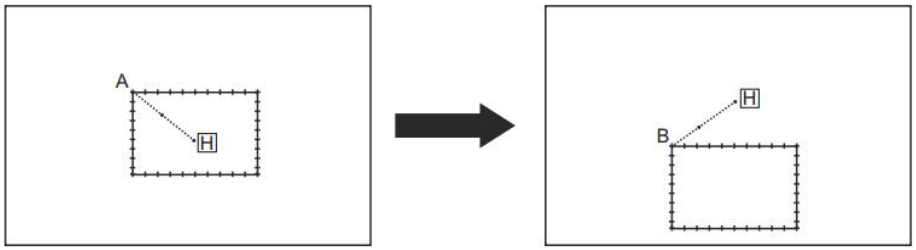
: Press to display zoom out

: Move in a straight line to the positioning point

: Move along the pattern trajectory to the positioning point

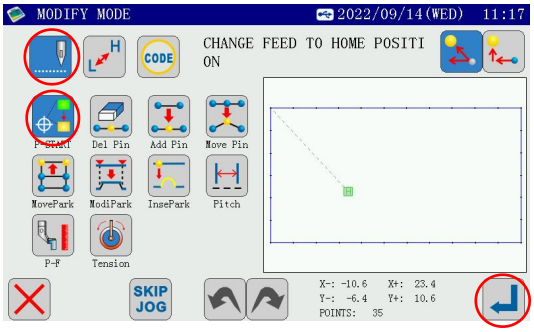
(6) Correction on the Stitch Start Point

[Example]As shown in the patterns below, the Stitch Start Point is to be changed from Point A to B.



Operation Instruction

1 . Select the Start Stitch Point Shift Function

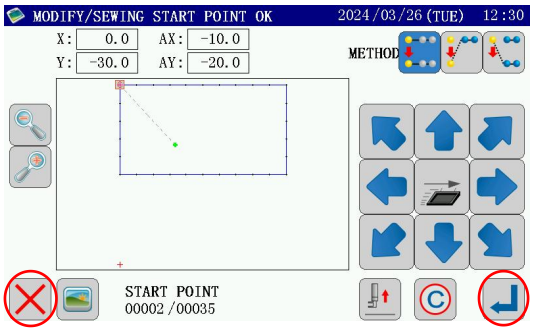


* Enter into Correction Mode Group (Refer to the methods specified in the Access to Correction Mode Group)
* Press the Stitch Data Correction Button  and then Stitch Shift Button .
* Press  to confirm.



Pay attention to the needle Stop Position as the outer presser foot will automatically shift to the Stitch Start PointPoint A.

2 . New Stitch Start Point after Correction and Shift



* Shift Point B to be beneath the needle by Shifting Button.

* Press  to confirm.
(Execute the modified Stitch Start Point)



Pay attention to the needle Stop Position as the outer presser foot will automatically return to the Zero Position.

* Press  to cancel the correction for Stitch Start Point and return to the previous interface when necessary.

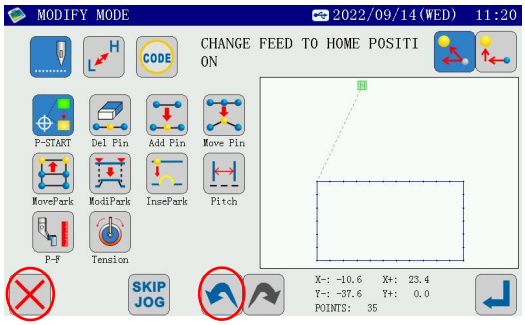
* Correction mode selection

: 2nd origin move, start point move， Press  to choice.

: 2nd origin move,start point fixed， Press  to choice.

: 2nd origin fixed, start point move， Press  to choice.

3 . Verify the Corrected Pattern Data

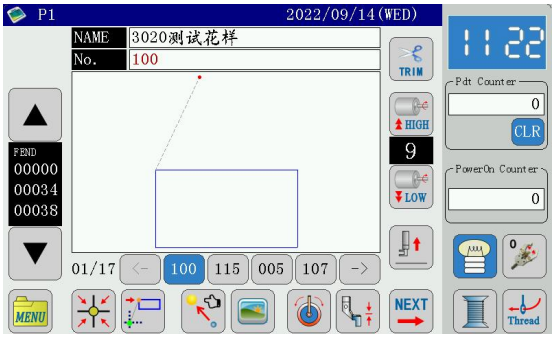


* Exit from Correction Mode Group.

Press  ， Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction Input and return to the original state）

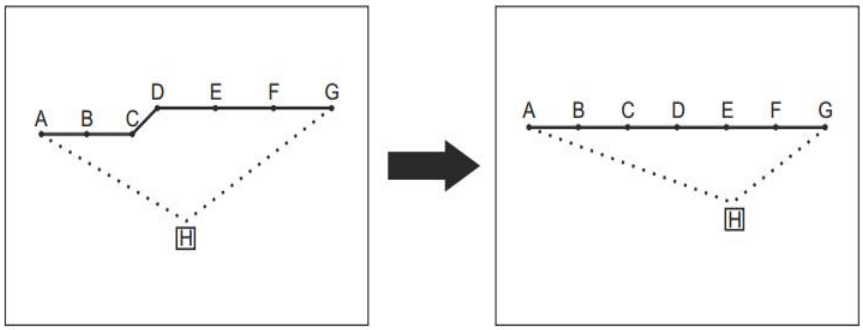
4 . Verify the Pattern again under Standard Interface.



* The pattern shows that the Stitch Start Point has been corrected according to the requirement.

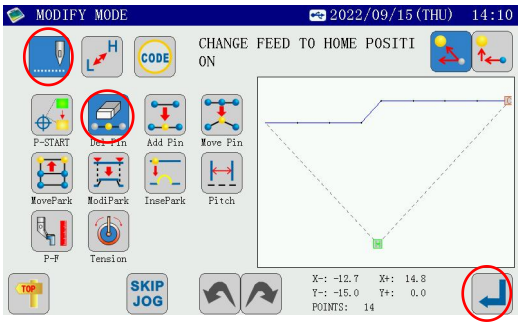
(7) Delete Stitch (Delete Specified Number of Stitches)

【Example】As shown in the following diagram, 1 stitch between Point C and D is to be deleted.



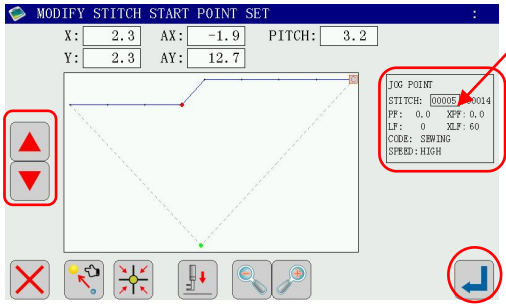
Operation Instruction (Delete Specified Number of Stitches)

1 . Select Stitch Deletion Function Mode



* Enter into Correction Mode Group Interface. (Reference the Access to Correction Mode Group From Standard Interface)
* Press the Button for Stitch Data Change  and then the Button for deletion .
* then press  to confirm， The next page will be displayed.

2 . Confirm the Position of the Stitch to be deleted.



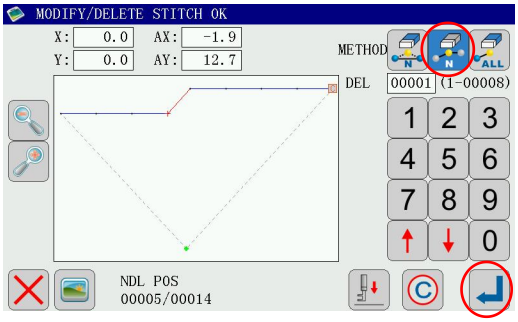
Number of stitches:
current number of stitches / total number of stitches

X，Y，PF，LF：current stitch to next stitch X position、Y position, the height of press foot, the Change value of thread clamp tension.

XA，YA，XPF，XLF：current stitch X position、Y position, the height of press foot, the Absolute value of thread clamp tension.

* Press the JOG ON buttons:  to shift Point C to be beneath the needle (the position of the stitch to be deleted)
* Press  to confirm.

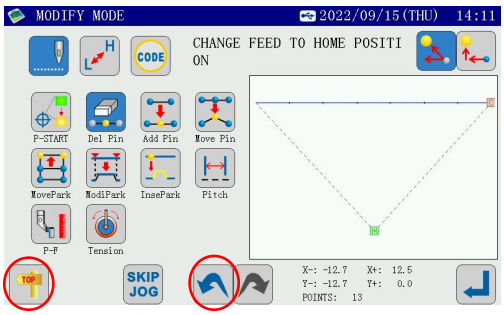
2 . Set the Mode of Deletion.



* Press the button programmed to Delete specified number of stitches

* Press to set 1 stitch to be deleted.then Press to confirm.
(Execute 1 Stitch-deletion)

4 . Verify the Pattern after the input of 1 Stitch-deletion.

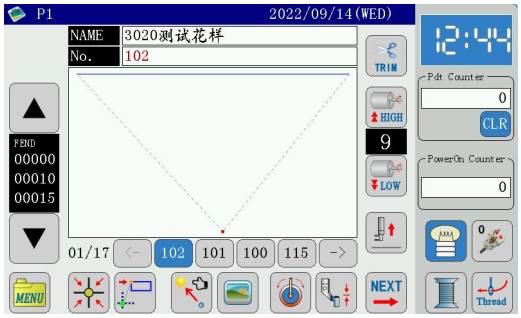


* Exit from Correction Mode Group.

Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

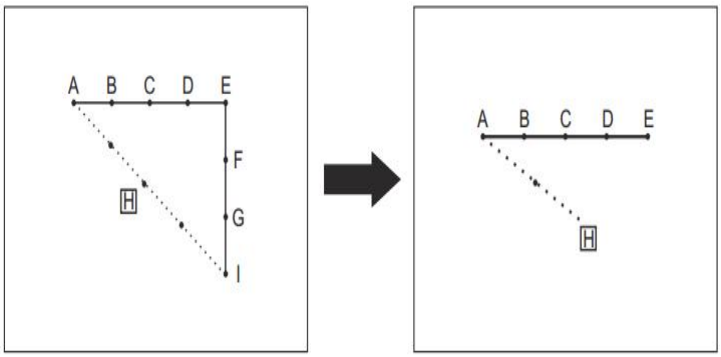
5 . Check again under Standard Interface.



* 1 stitch has been deleted.

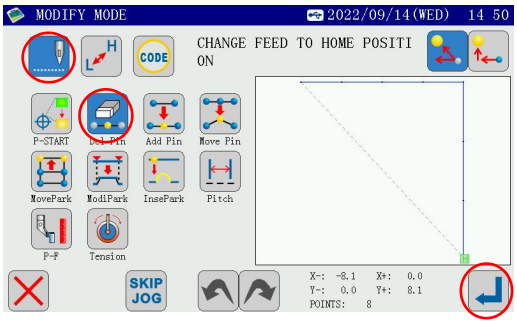
(8) Delete Stitch (Delete all Stitches after a Specified Point)

【Example】As shown in the following diagram, all pattern data after Point E is to be deleted.



Operation Instruction (Delete all Stitches after a Specified Point)

1 . Select Stitch Deletion Function Mode

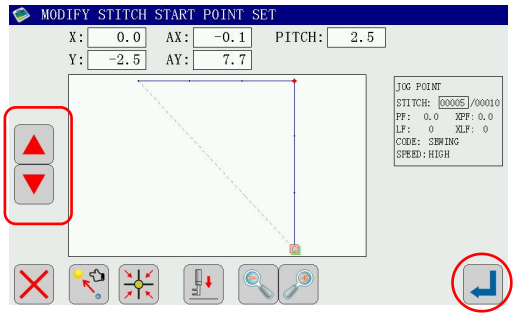


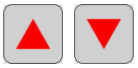
* Enter into Correction Mode Group Interface. (Reference the Access to Correction Mode Group From Standard Interface)

* Press the Button for Stitch Data Change  and then the  Button for deletion 。

* then press  to confirm， The next page will be displayed.

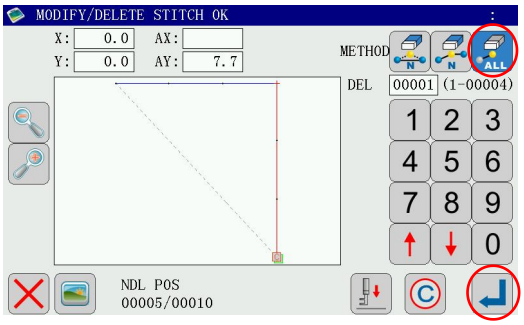
2 . Confirm the Position of the Stitch to be deleted.



* Press the JOG ON buttons:  to Point E to be beneath the needle (the position of the stitch to be deleted)

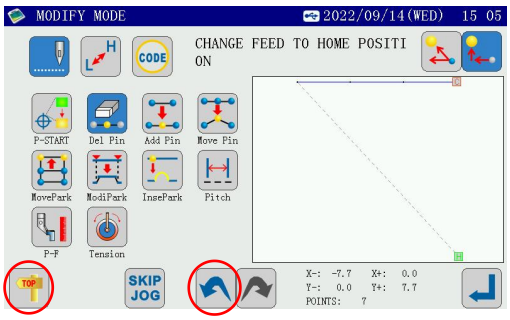
* Press  to confirm.

2 . Set the Mode of Deletion.



* Press button ALL programmed to delete all stitches and then press ↵ to (Execute All Stitch-deletion after a specified point)

4 . Verify the Pattern after the Input of All Stitch-deletion (after a Specified Point).



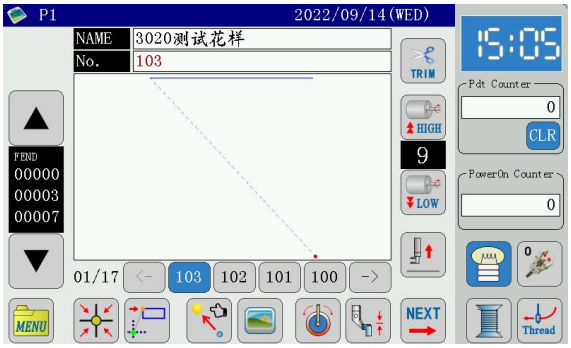
* Exit from Correction Mode Group.

Press TOP , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press ↶ to cancel the last correction original state）

5 . Verify the Pattern under Standard Interface.

* All pattern data after the specified point has been deleted.

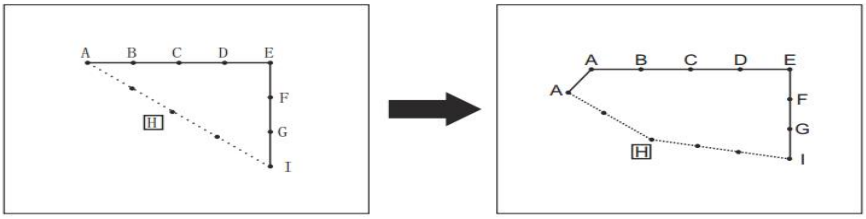


(9) Add Stitch (Add 1 Stitch)

【Example】

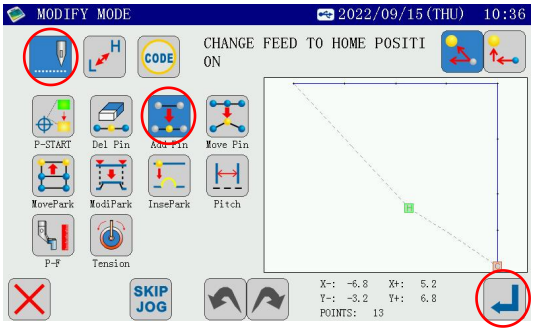
As shown in the following diagram, 1 stitch is to be added at Point A with the Specified Stitch Length AA'.

(The maximum stitch length is 12.7mm (the distance from A to A'))



Operation Instruction (Add 1 Stitch)

1 . Select Stitch Increment Function Mode

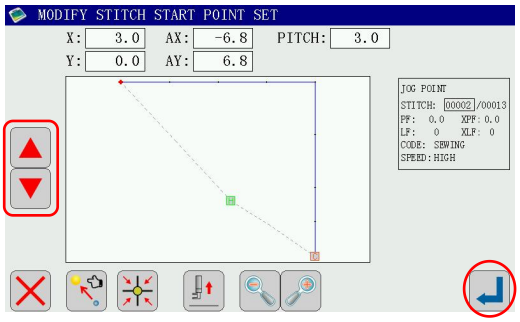


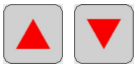
* Enter into Correction Mode Group Interface. (Reference the Access to Correction Mode Group From Standard Interface)

* Press the Button for Stitch Data Change  and then the Button for Stitch Increment .

* Press  to confirm. The next page will be displayed.

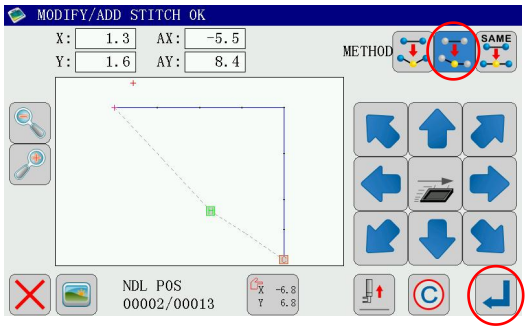
2 . Confirm the Position of the Stitch to be added.



* Press the JOG ON buttons:  to shift Point A to be beneath the needle (the position of the stitch to be added)

* Press  to confirm.

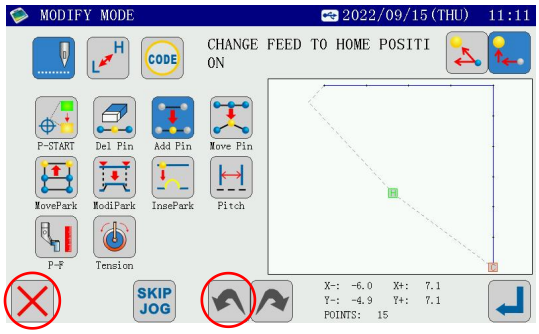
3 . Set the Mode of Increment.



* Press the button  programmed to add 1 stitch and then shift A' to be beneath the needle

* Press  to confirm.
(Execute 1 Stitch-increment.)

4 . Verify the Pattern after the Input of 1 Stitch-Increment.

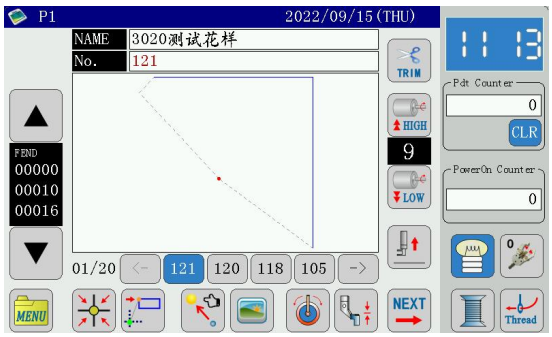


* Exit from Correction Mode Group.

Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

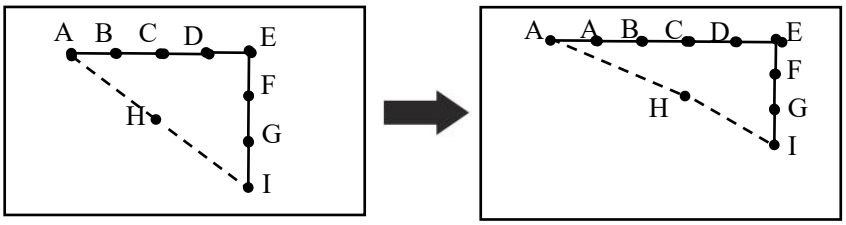
5 . Verify the Pattern under Standard Interface..



* 1 stitch has been added.

(10) Add Stitch (Add 1 Stitch with the Same Condition)

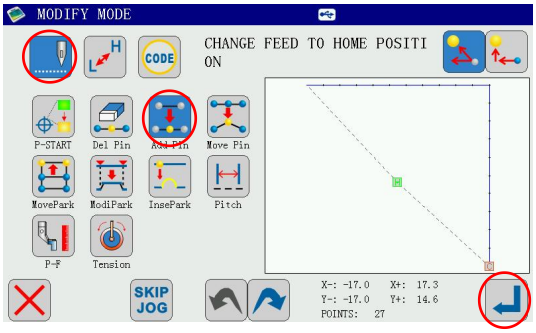
【Example】 As shown in the following diagram, 1 stitch is to be added at Point A with the Same Condition, the length of which is A'



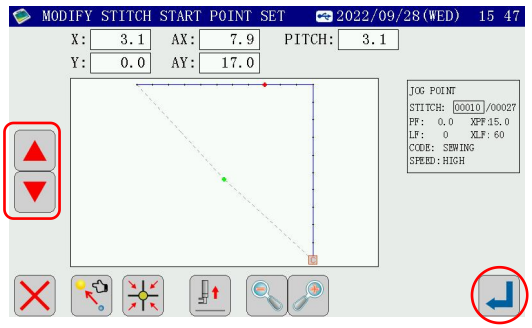
Operation Instruction (Add 1 Stitch with the Same Condition)

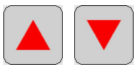
1 . Select Stitch Increment Function Mode

* Enter into Correction Mode Group Interface.
* Press the Stitch Data Correction Button  and then Stitch Shift Button .
* Press  to confirm.The next page will be displayed.

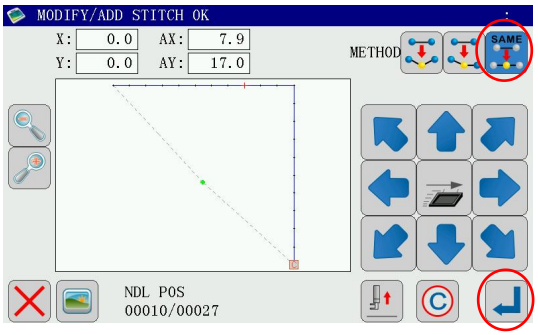


2 . Confirm the Position of the Stitch to be added.



* Press the JOG ON buttons: 
To Point A to be beneath the needle
(the position of the stitch to be added)
* Press  to confirm.

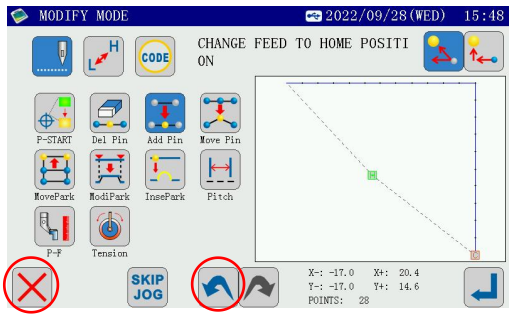
3 . Set the Mode of Increment.



* Press the button  programmed to add 1 stitch with the same condition.

* Press  to confirm.
(Execute 1 Stitch-increment)

4 . Verify the Pattern after 1 stitch with the same condition has been input



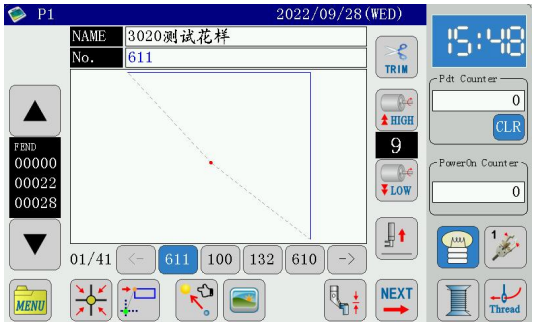
* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

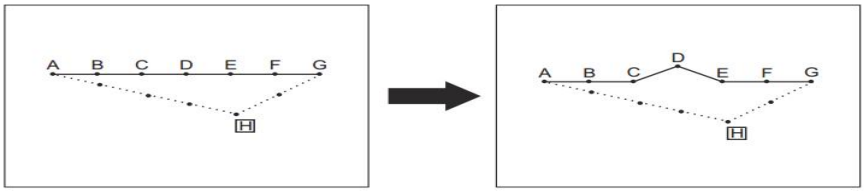
5 . Verify the Pattern under Standard Interface.

* 1 stitch with the same condition has been added.



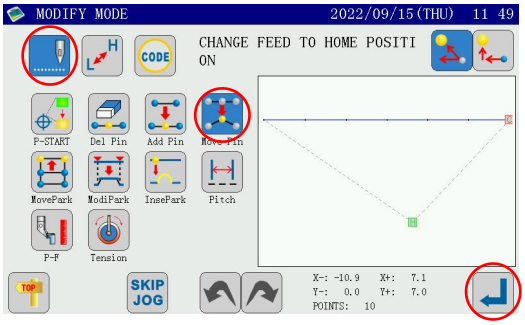
(11) Modify Stitch Position (All positions after that position remain unchanged)

【Example】As shown in the following diagram, Point D is to be shifted.
(The positions of Point E, F, and G remain unchanged).



Operation Instruction
(The positions after the position to be modified remain unchanged.)

1 . Select Stitch Position Correction Function Mode.

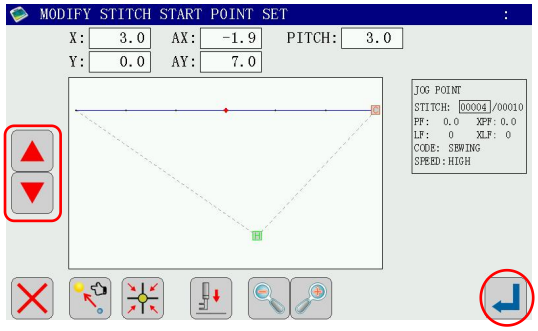


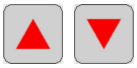
* Enter into Correction Mode Group Interface
(Refer to the methods specified in the
Access to Correction Mode Group)

* Press the Stitch Data Correction Button and then Stitch Shift Button .

* Press to confirm.
The next page will be displayed.

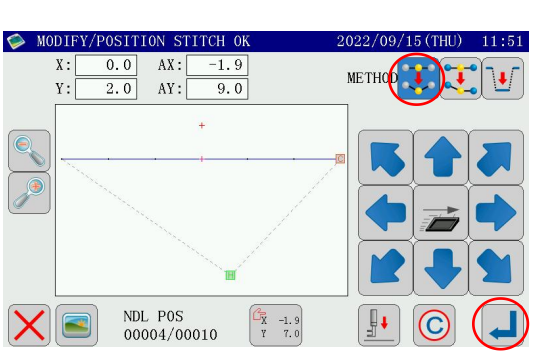
2 .Confirm the Position to be modified.



* Press the JOG ON buttons:  to shift Point D to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

3 . Set the Mode of Correction and Displacement.

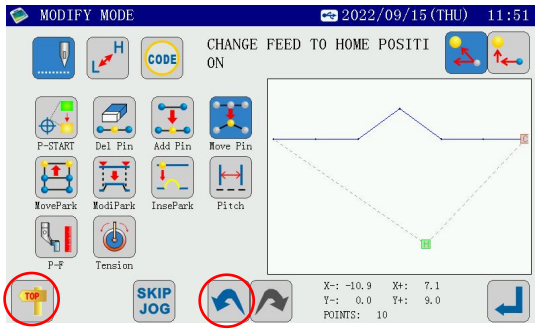


* Press the button  programmed to Modify a position and keep all positions after it unchanged. Then shift Point D' to be beneath the needle by shifting button.

* Press  to confirm.

Note: Please keep the displacement to be below or equal to the maximum stitch length : 12.7mm.

4 . Verify the Pattern after the input of Correction Data.



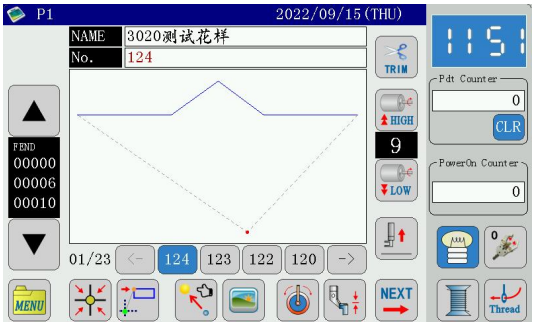
* Exit from Correction Mode Group.

Press 

，Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

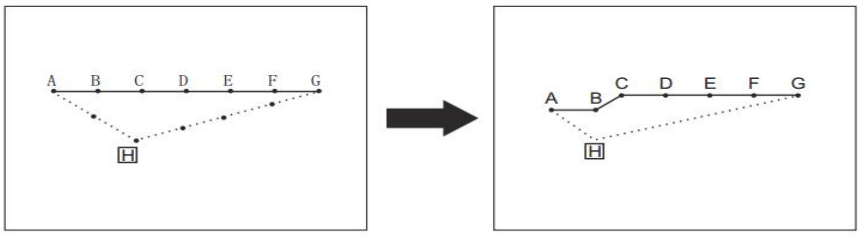
5 . Verify the Pattern under Standard Interface.



* The position of the stitch has been modified.

(12) Modify Stitch Position (All positions after that position change accordingly)

【Example】 As shown in the following diagram, Point C is to be shifted.
(The positions of Point D, E, F, and G change accordingly).

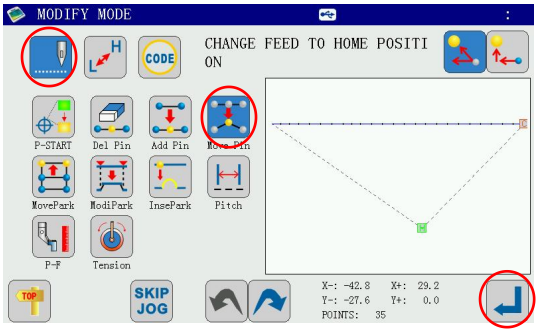


Operation Instruction (The positions after the position to be modified change accordingly)
1. Select Stitch Position Correction Function Mode.

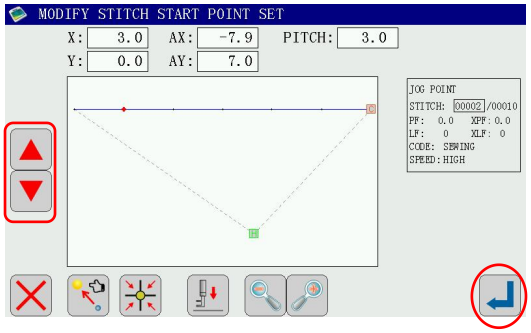
* Enter into Correction Mode Group Interface.
(Refer to the methods specified in the
Access to Correction Mode Group)

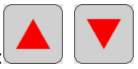
* Press the Stitch Data Correction Button  and then Stitch Shift Button .

* Press  to confirm.
The next page will be displayed.



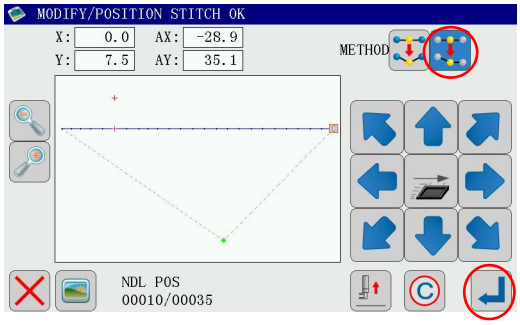
2 . Confirm the Position to be modified.



* Press the JOG ON buttons:  to shift Point C to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm

3 . Set the Mode of Correction and Displacement.

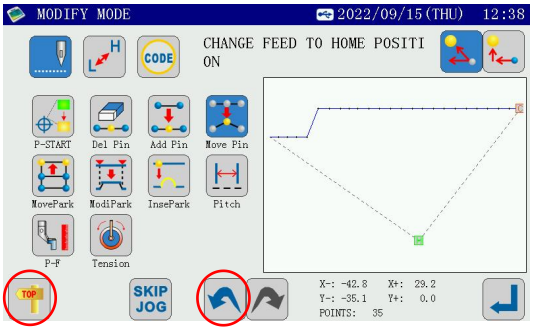


* Press the button  programmed to modify a position and keep all positions after it unchanged.
Then shift Point C' to be beneath the needle by shifting button.

* Press  to confirm.

Note: Please keep the displacement to be below or equal to the maximum stitch length : 12.7mm.

4 . Verify the Pattern after the input of Correction Data.



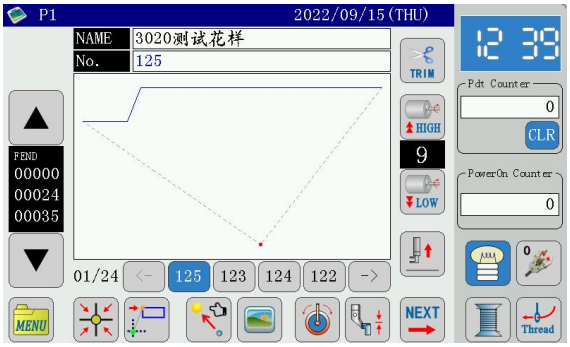
* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

5 . Verify the Pattern under Standard Interface.

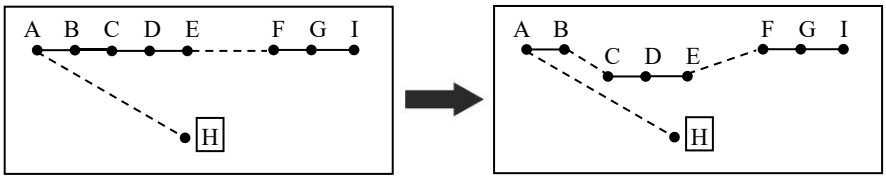
* The position of the stitch has been modified.



(13) Shift Section (The pattern data right before and after the section change accordingly))

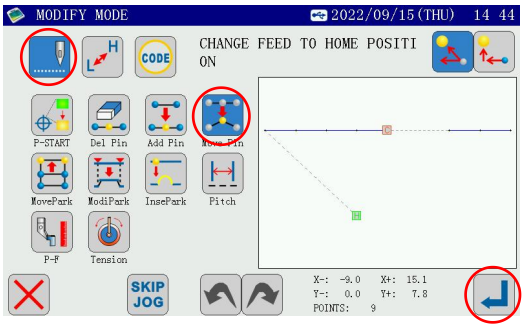
Note: Only pattern data in B format is supported.

【Example】As shown in the following diagram, Point D and E are to be shifted to D' and E' respectively and the pattern data right before and after Section D'E' change accordingly



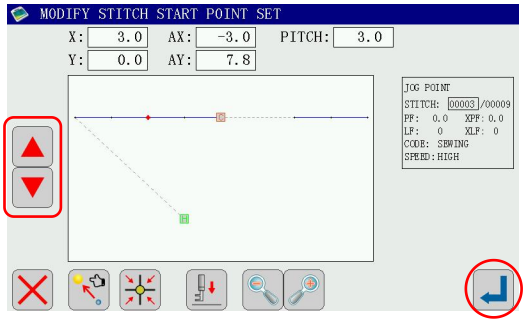
Operation Instruction

1. Select Section Shift Function Mode.



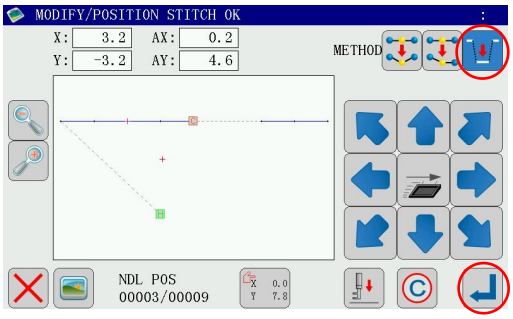
* Enter into Correction Mode Group Interface (Refer to the methods specified in the Access to Correction Mode Group)
* Press the Stitch Data Correction Button and then Stitch Shift Button 。
* Press to confirm.
The next page will be displayed.

2 . Confirm the Range of the Section to be modified. (Start Point)



* Press the JOG ON buttons: to shift Point C to be beneath the needle (the position of the stitch to be modified)
* Press to confirm.

3 . Set the Mode of Correction and Displacement.

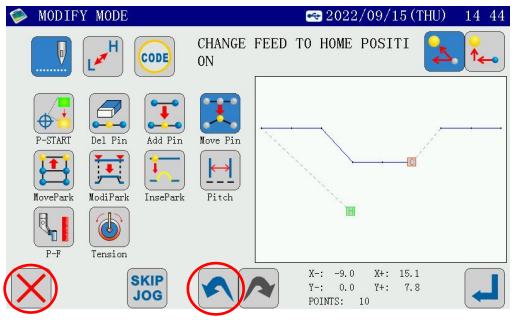


* Press the button  programmed to modify A position and make all positions after it change accordingly. Then shift Point C' to be beneath the needle by shifting button.

* Press  to confirm.
(Execute Stitch Position Correction.)

Note: Please keep the displacement to be below or equal to the maximum stitch length: 12.7mm.

4 . Verify the Pattern after the input of Correction Data.

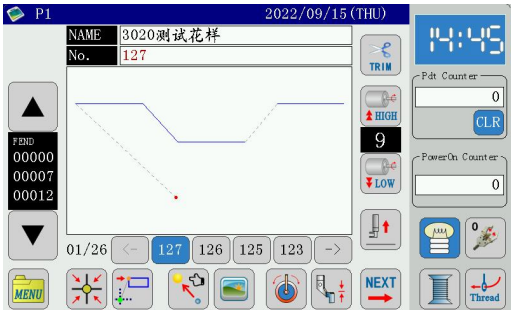


* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

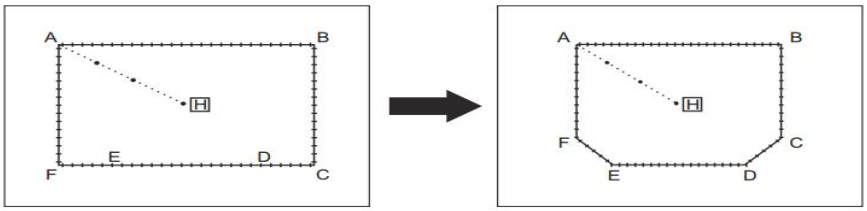
5 . Verify the Pattern under Standard Interface



* The position of the stitch has been modified.

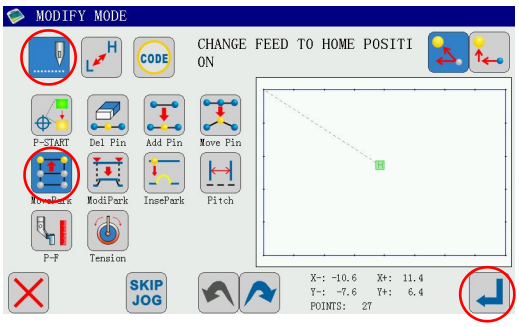
(14) Shift Section (The pattern data right before and after the section change accordingly)

【Example】As shown in the following diagram, Point D and E are to be shifted to D' and E' respectively and the pattern data right before and after Section D'E' change accordingly.



Operation Instruction

1. Select Section Shift Function Mode.

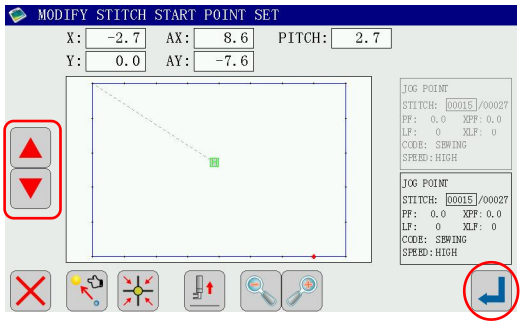


* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group)

* Press the Stitch Data Correction Button and then Stitch Shift Button 。

* Press to confirm.
The next page will be displayed.

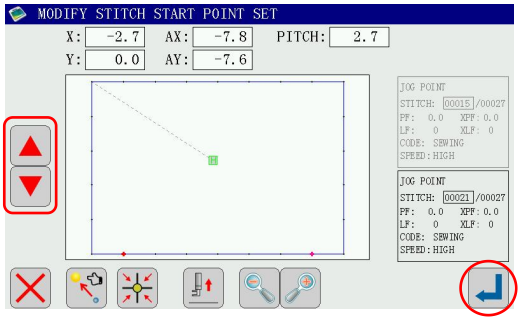
2 . Confirm the Range of the Section to be modified. (Start Point)

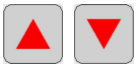


* Press the JOG ON buttons: to shift Point D to be beneath the needle (the position of the start point)

* Press to confirm.

3 . Confirm the Range of the Section to be modified. (End Point)



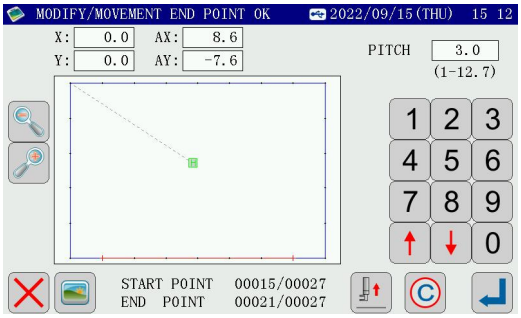
* Press the JOG ON buttons: 
to shift Point E to be beneath the needle
(the position of the end point)

* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point

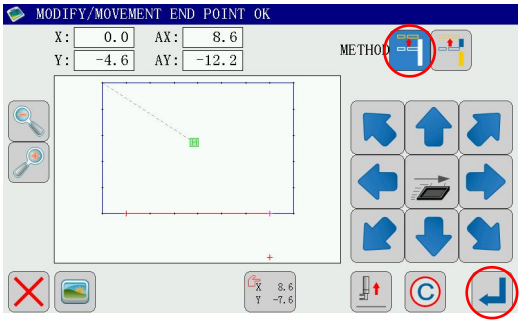
4 . Set Stitch Length.



* Set the stitch length.
(Set the value as 3.0mm by numerical buttons)

* Press  to confirm.

5 . Confirm the Displacement.



* Set the Mode of Correction.

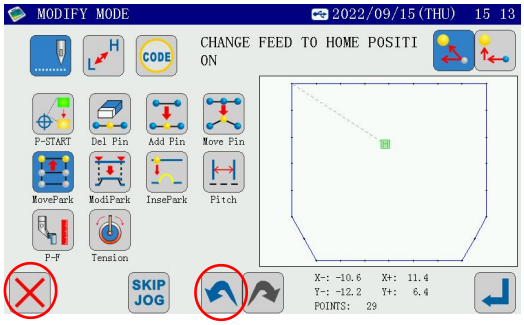
Press the button programmed to shift a section and make the data right before and after it change accordingly.

* Shift Point D' to be beneath the needle by Shifting button.

* Then press to confirm.
(Execute Section Shift)

Pay attention to the Stop Position of the needle as the outer presser foot will automatically return to the Stitch Start

6 . Verify the Pattern Data after the Correction Input



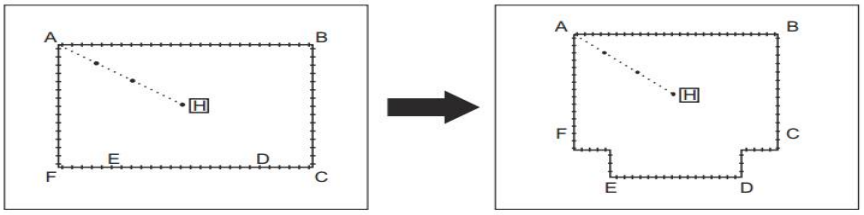
* Exit from Correction Mode Group.

Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

(15) Shift Section (Add new pattern data right before and after the shifted section)

【Example】As shown in the following diagram, Point D and E are to be shifted to D' and E' respectively and a new pattern data shall be added to the shifted section accordingly.



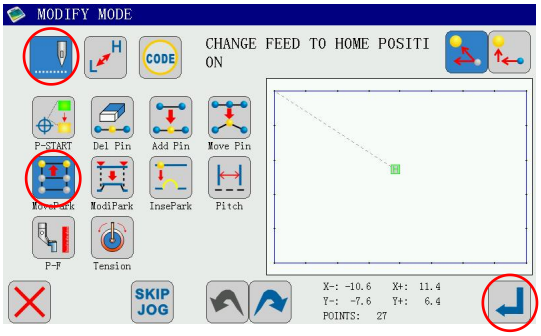
Operation Instruction

1. Select Section Shift Function Mode

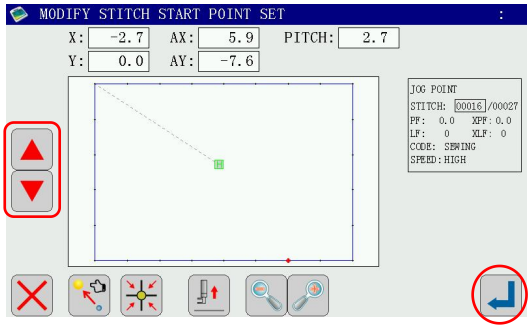
* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group)

* Press the Stitch Data Correction Button and then Stitch Shift Button 。

* Press to confirm.
The next page will be displayed.



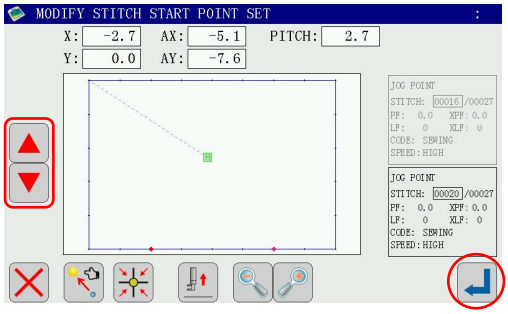
2 . Confirm the Range of the Section to be modified. (Start Point)

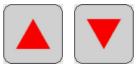


* Press the JOG ON buttons: to shift Point D to be beneath the needle (the position of the start point)

* Press to confirm.

3.Confirm the Range of the Section to be modified. (End Point)



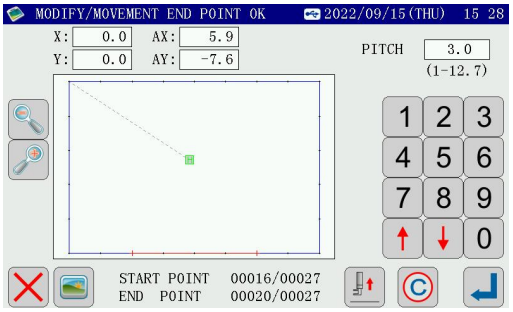
* Press the JOG ON buttons: 
to shift Point E to be beneath the needle
(the position of the end point)

* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point

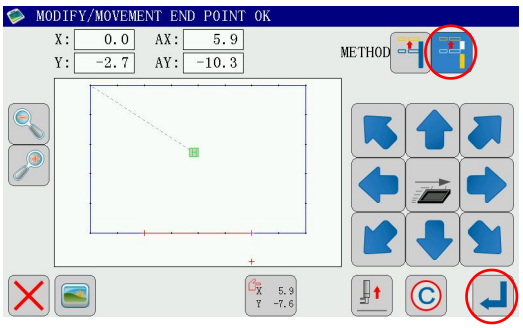
4 . Set Stitch Length.



* Set the stitch length.
(Set the value as 3.0mm by numerical buttons)

* Press  to confirm.

5 . Confirm the Displacement.



* Set the Mode of Correction.

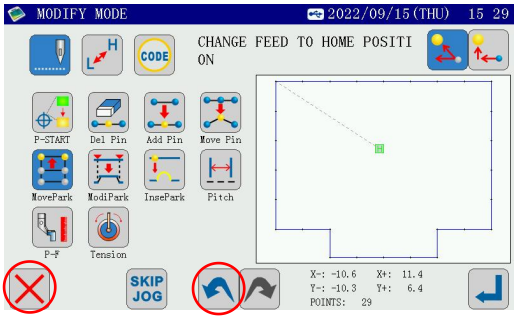
Press the button programmed to shift a section and make the data right before and after it change accordingly.

* Shift Point D' to be beneath the needle by Shifting button.

* Then press to confirm.
(Execute Section Shift)

Pay attention to the Stop Position of the needle as the outer presser foot will automatically return to the Stitch Start Point A.

6 . Verify the Pattern Data after the Correction Input



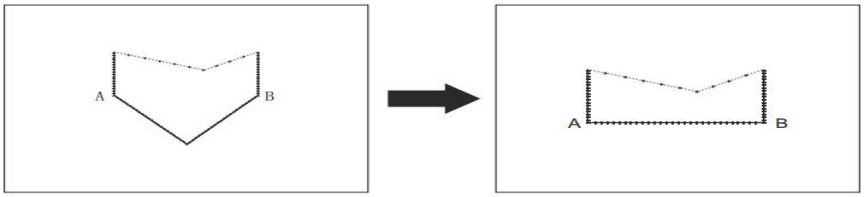
* Exit from Correction Mode Group.

Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

(16) Modify Section Part 1 (Change a Section to a Straight line)

【Example】As shown in the following diagram, the pattern between Point A and B is to be changed to a straight line.



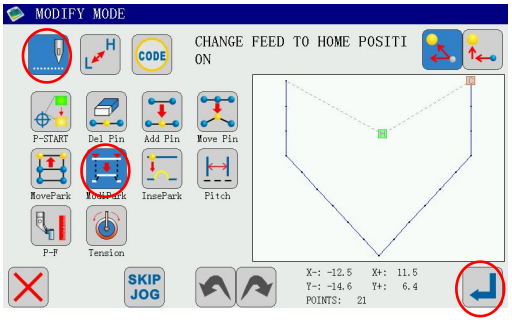
Operation Instruction

1. Select Section Correction Function Mode.

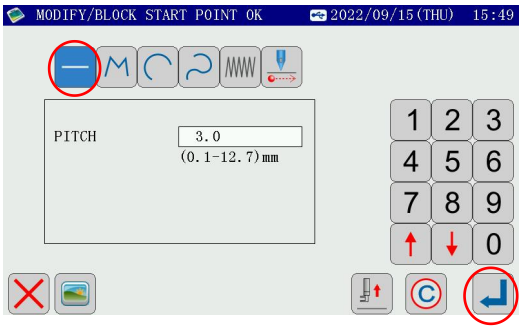
* Enter into Correction Mode Group Interface
  (Refer to the methods specified in the
  Access to Correction Mode Group)

* Press the Stitch Data Correction Button  and then Stitch Shift Button  .

* Press  to confirm.
The next page will be displayed.



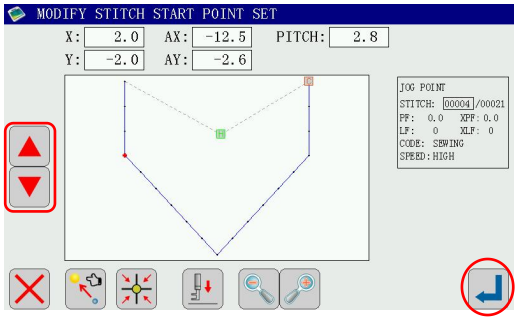
2 . Select the Correction Mode.

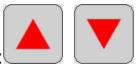


* Press the button  programmed to change the pattern to a straight line.
(Set the value as 3.0mm by numerical buttons)

* Press  to confirm.

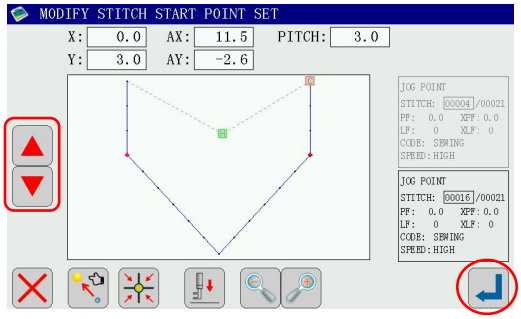
3 . Confirm the Range of the Section to be modified. (Start Point)

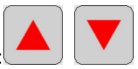


* Press the JOG ON buttons:  to shift Point A to be beneath the needle (the position of Start Point)

* Press  to confirm.

4 . Confirm the Range of the Section to be modified. (End Point)



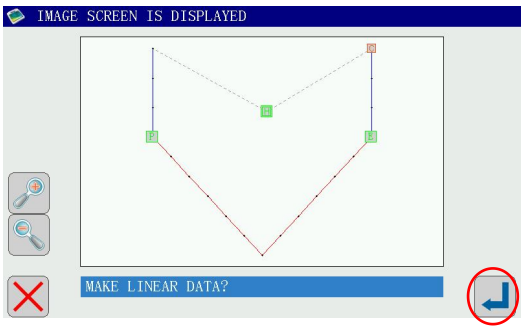
* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of End Point)

* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

5 . To Process the Input Section Correction Data?

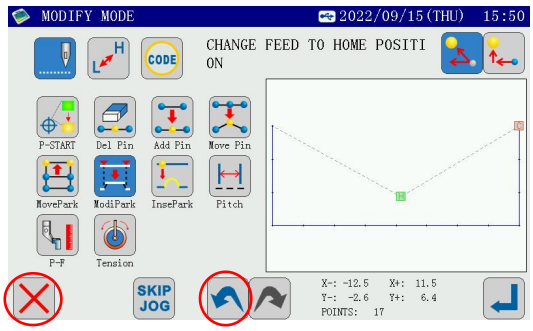


* Press  to confirm.
(The Section Correction Function will be executed.)



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point.

6 . Verify the Pattern Data after the Correction Input



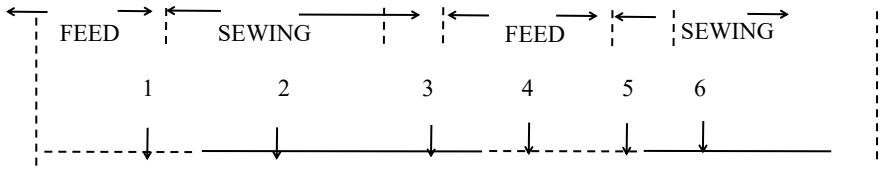
* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

Note:
1. Under the Section Correction Function Mode, only 1 point within the specified section is needed to be defined for Circular Arc Modification.
2. Under the Section Correction Function Mode, the Straight Line Correction Function Mode is programmed to change the specified section to a straight line connecting the start and end point.
3. Any additional function added to the section to be modified will be deleted during the modification process.
4. Explanation on the start and end points of a section to be modified is as follows:

For Non-FEED Data Correction
A Start Point can be defined when it is a sewing pattern.
An End Point can be defined when the stitch right before it is a sewing pattern.
(As shown in the following diagram)
(The data between Start and End Points have nothing to do with the definition of the Start and End Point. However, any FEED data between Start and End Points will be automatically changed into Sewing data.)



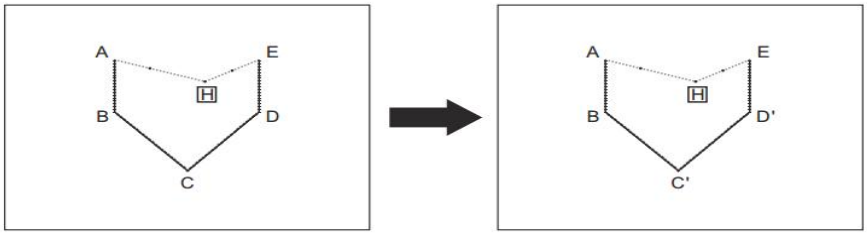
Start point		end point	can be defined or not
1	-	2	(OK)
1	-	3	(OK)
1	-	4	(NG) ... Because the stitch right before it is FEED Data
1	-	5	(NG) ... Because the stitch right before it is FEED Data.
1	-	6	(OK)

* For FEED Data
The Start Point can be defined if it is Sewing or FEED Data.
The End Point can be defined if the stitch right before it is Sewing or FEED Data.
(The data between Start and End Points has nothing to do with the definition of the Start and End Points.

(17) Modify Section Part 2 (Modify Fold Line, Circular Arc and Curve)

SKIP JOG button is used to modify a specified position (the modification process will become easier when the original pattern data is used as the datum).

【Example】As shown in the following diagram, the patterns of Point C and D are to be changed to C' and D' respectively).



Operation Instruction

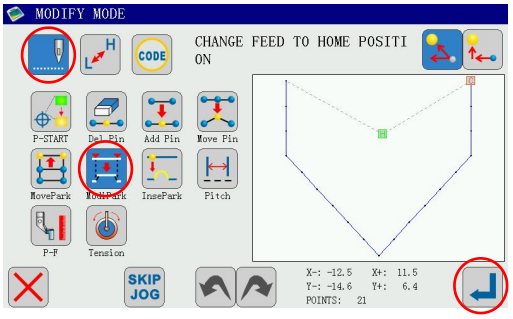
1. Select Section Correction Function Mode.

* Enter into Correction Mode Group Interface (Refer to the methods specified in the Access to Correction Mode Group)

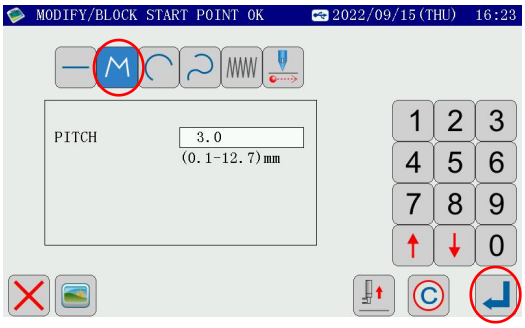
* Press the Stitch Data Correction Button  and then Stitch Shift Button  。

* Press  to confirm.

The next page will be displayed.



2 . Select the Correction Mode.

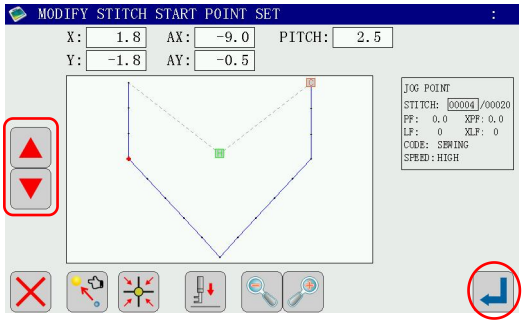


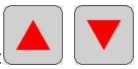
* Press button  programmed to modify polygonal lines。

* Set the value as 3.0mm by numerical buttons。

* Press  to confirm.

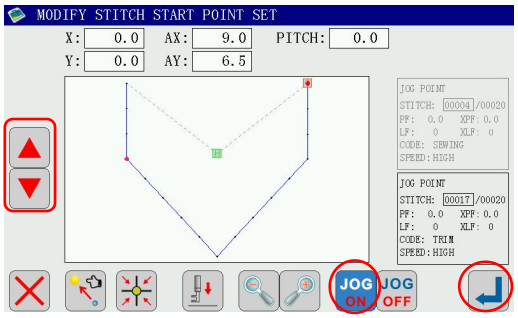
3 . Confirm the Range of the Section to be modified. (Start Point)

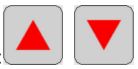


* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of Start Point)

* Press  to confirm.

4 . Confirm the Range of the Section to be modified. (End Point)



* Press the JOG ON buttons:  to shift Point E to be beneath the needle (the position of End Point)

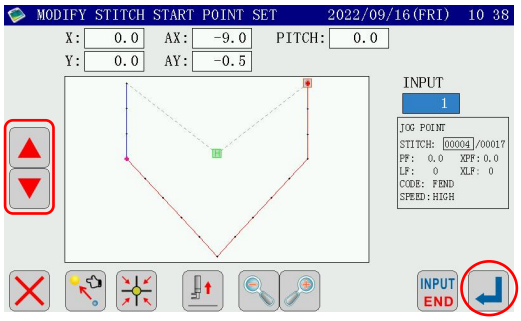
* Enable the SKIP JOG Function  。

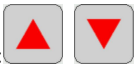
* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

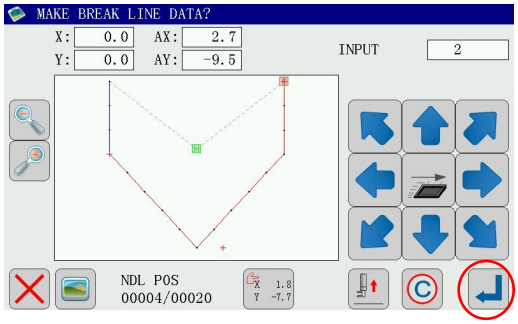
5 . To Shift / Confirm the Points to be modified by the use of JOG ON buttons.



* Press the JOG ON buttons:  to shift Point C to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

6 . Shift the Points to be modified to the New Specified Position / Confirm



* Shift Point C' to be beneath the needle by (New Position after Correction Input).

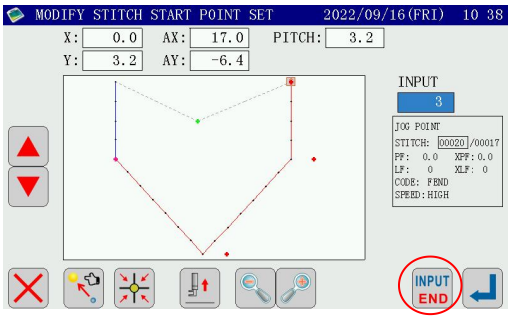
Shift Point D and D' to be beneath the needle according to the above Operation Instruction 5 and 6. (If more positions are to be modified, repeat the Operation Instruction 5 and 6 until all points have been input).

* Press  to confirm.



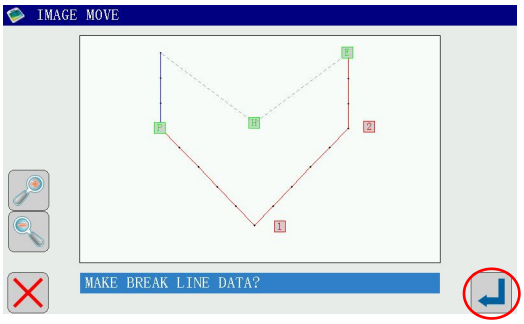
Pay attention to the Stop Position of the needle as the outer presser foot will automatically return to the Start Point.

7 . End the Position Correction Input



* After all of the position corrections have been confirmed, press INPUT END to end the data input process.

8 . Execute the Section Correction Input?

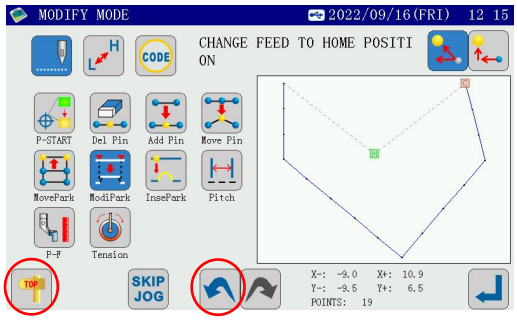


* Press ↵ to confirm.
(The Section Correction Function will be executed)

⚠

Pay attention to the Stop Position of the needle as the outer presser foot will automatically return to the Start Point.

9 . Verify the Pattern Data after the Correction Input



* Exit from Correction Mode Group.

Press 

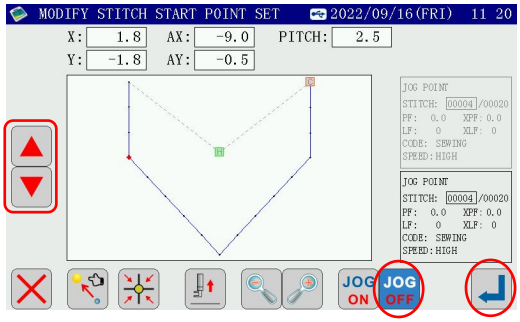
, Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

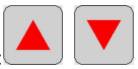
(Press  to cancel the last correction data input and return to the original state）

Modify the Specified Position with the SKIP JOG Button Disabled. (The process will become easier when the new pattern data is used as the datum)

Operation Instruction 1, 2 and 3 remain unchanged. (The same as those mentioned above). The explanation starts from Operation Instruction 4.

4 . Confirm the Range of the Section to be modified. (End Point)



* Press the JOG ON buttons:  to shift Point E to be beneath the needle (the position of End Point)

*Disable the SKIP JOG Function 

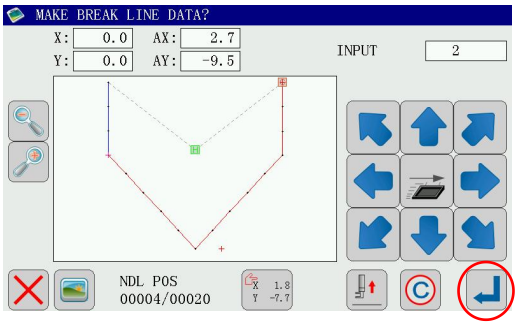
。

* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

5 . Shift / Confirm the New Position.



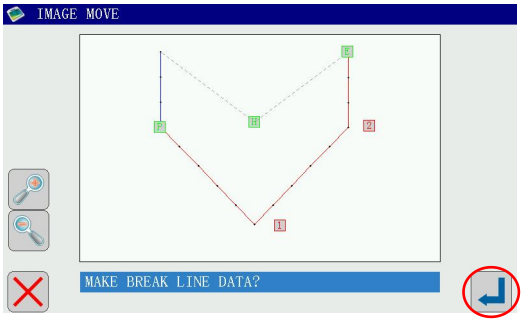
* Shift Point C' to be beneath the needle by Shifting Button.
(New Position after Correction Input).

* Press  to confirm.

* Shift Point D' to be beneath the needle according to the Operation Instruction 5. (If more positions are to be modified, repeat the Operation Instruction 5 until all points have been input).

* After all Correction Inputs have been confirmed, Press  again to confirm.

6 . To Execute the Section Correction Input?



* Press  to confirm.
(The Section Correction Function will be executed)



Pay attention to the Stop Position of the needle as the outer presser foot will automatically return to the Start Point.

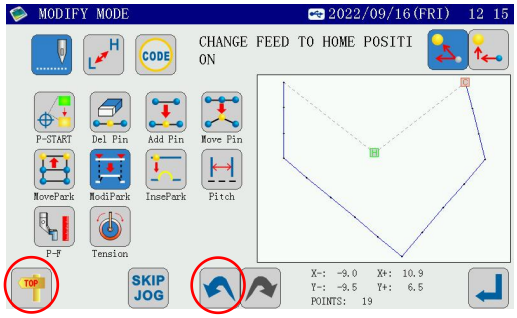
7 . Verify the Pattern Data after the Correction

* Exit from Correction Mode Group.

Press 

， Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

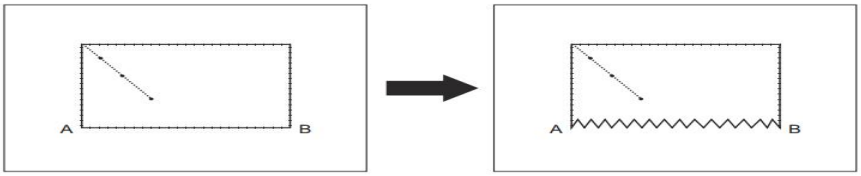


(18) Modify Section Part 3 (Change Pattern to Z-shaped Stitch)

Note: Only pattern data in M format is supported.

【Example】

As shown in the following diagram, the patterns between Point A and B is to be modified to Z-shaped Stitch.



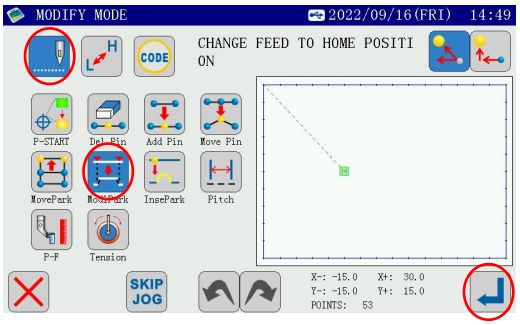
Operation Instruction

1 . Select Section Correction Function Mode

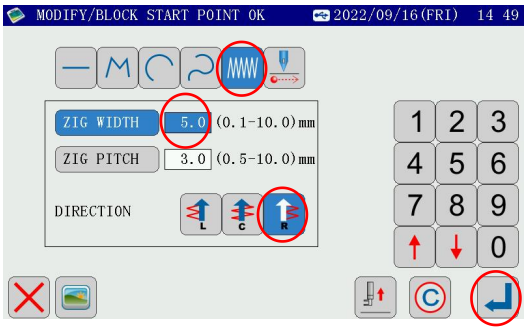
* Enter into Correction Mode Group Interface (Refer to the methods specified in the Access to Correction Mode Group)

* Press the Stitch Data Correction Button  and then Stitch Shift Button  。

* Press  to confirm.
The next page will be displayed.



2 . Select the Correction Mode



* Press button  programmed to modify a pattern to Z-shaped stitch

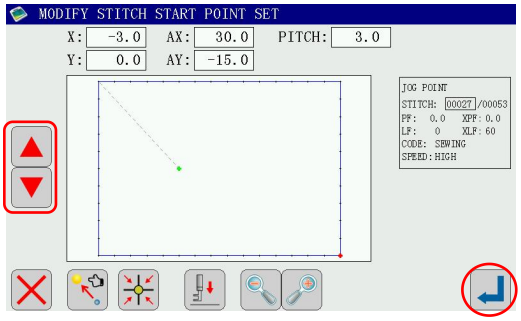
* Set the value of Amplitude, Pitch and Swing Direction of the Z-shaped Stitch. Amplitude =5.0 mm, Pitch = 3.0mm and Swing Direction = Right (R)

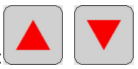
Note: Please refer to Z-shaped Stitch Input (Attached with Overlapping-stitch) for details on the setting of above parameters.

* Press  to confirm.

(*Press  to cancel the settings and return to the original state before setting the Amplitude, Pitch and Swing Direction.)

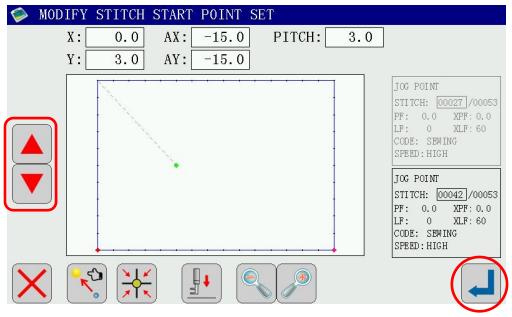
3 . Confirm the Range of the Section to be modified. (Start Point)

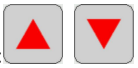


* Press the JOG ON buttons:  to shift Point A to be beneath the needle (the position of Start Point)

* Press  to confirm.

4 . Confirm the Range of the Section to be modified. (End Point)



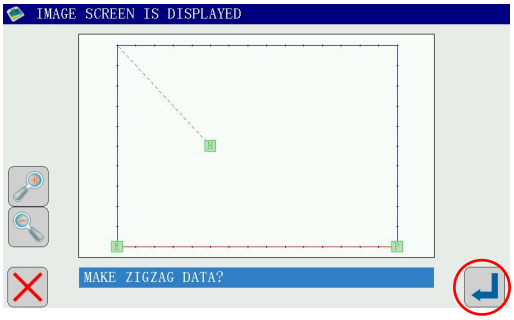
* Press the JOG ON buttons:  to shift Point E to be beneath the needle (the position of End Point)

* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

5 . To Execute the Section Correction Input?



* Press  to confirm.
(The Section Correction Function will be executed)



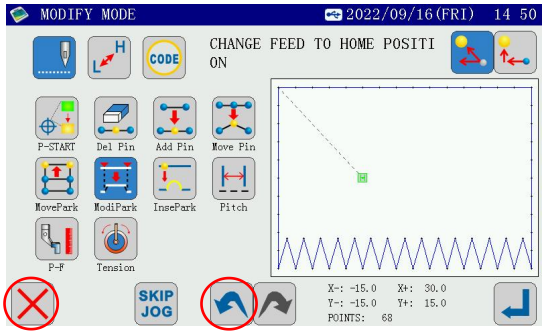
Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

6 . Verify the Pattern Data after the Correction Input

* Exit from Correction Mode Group.

Press  ， Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

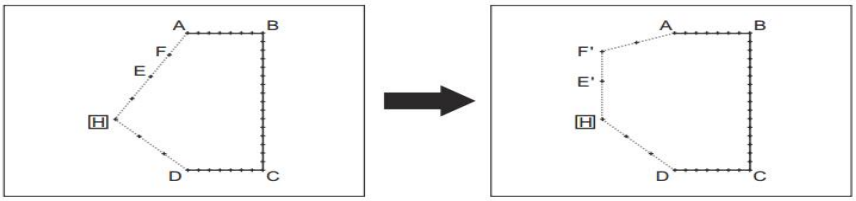
(Press  to cancel the last correction data input and return to the original state）



(19) Modify Section Part 4 (Modify FEED Data)

SKIP JOG button is used to modify a specified position
(the modification process will be come easier when the original pattern data is used as the datum)

【Example】 As shown in the following diagram, the patterns of Point E and F are to be changed to E' and F' respectively).



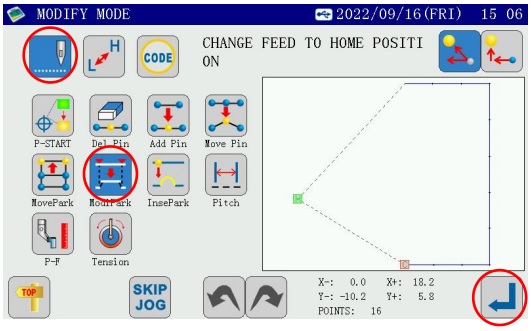
Operation Instruction

1. Select Section Correction Function Mode.

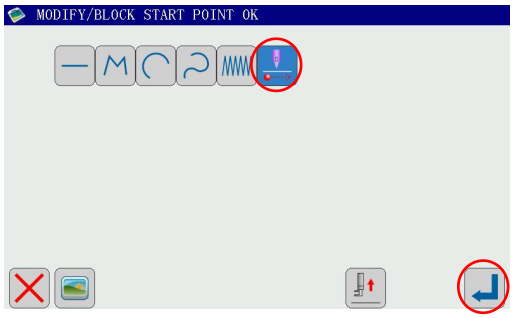
* Enter into Correction Mode Group Interface
(Refer to the methods specified in the Access to Correction Mode Group)

* Press the Stitch Data Correction Button  and then Stitch Shift Button  。

* Press  to confirm.
The next page will be displayed.



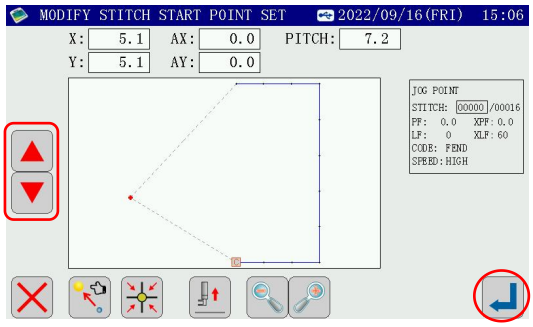
2 . Select the Correction Mode.



* Press button  programmed to modify FEED Data。

* Press  to confirm.

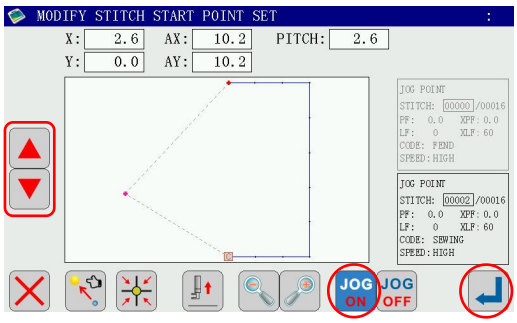
3 . Confirm the Range of the Section to be modified. (Start Point)

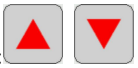


* Press the JOG ON buttons:   to shift Point to be beneath the needle (the position of Start Point)

* Press  to confirm.

4 . Confirm the Range of the Section to be modified. (End Point)



* Press the JOG ON buttons:  to shift Point A to be beneath the needle (the position of End Point)

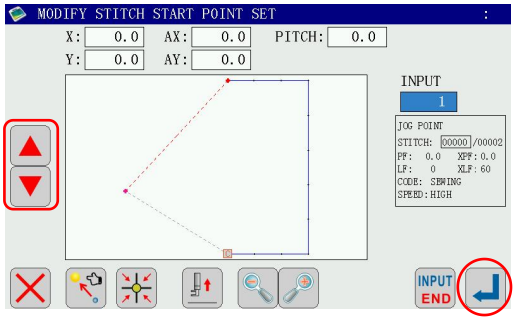
* Enable the SKIP JOG Function  。

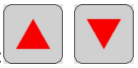
* Press  to confirm.



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

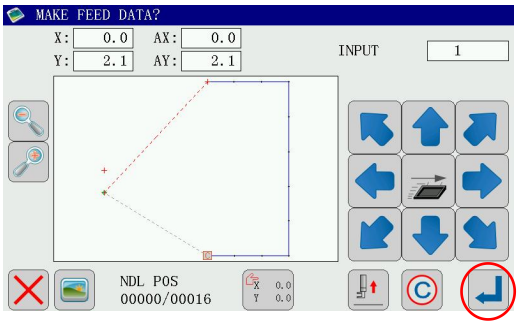
5 . To Shift / Confirm the Points to be modified by the use of JOG ON buttons



* Press the JOG ON buttons:  to shift Point E to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

6 . Shift the Points to be modified to the New Specified Position / Confirm



* Shift Point E' to be beneath the needle by Shifting Button.
(New Position after Correction Input).

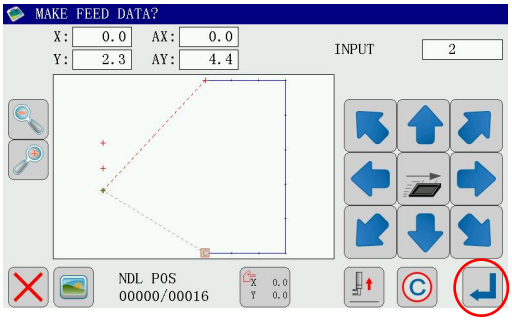
* Shift Point F and F' to be beneath the needle according to the above Operation Instruction 5 and 6.
(If more positions are to be modified,repeat the Operation Instruction 5 and 6 until all points have been input).

* Press  to confirm.



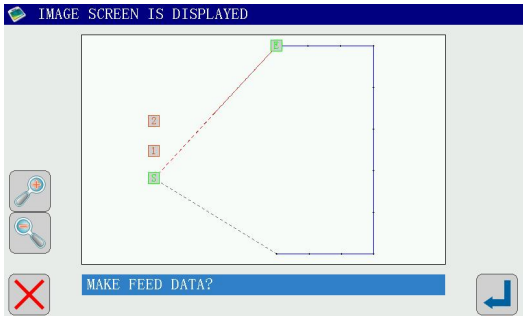
Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

7 . End the Position Correction Input



* After all of the position corrections have been confirmed, press  to end the data input process.

8 . To Execute the Section Correction Input?

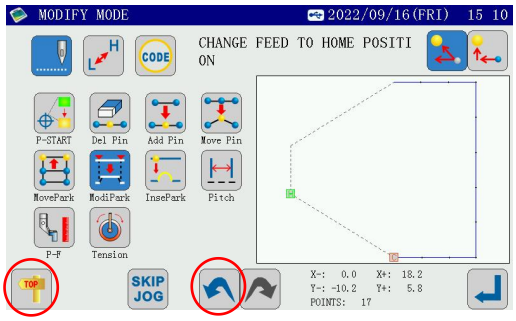


* Press  to confirm.
(The Section Correction Function will be executed)



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

9 . Verify the Pattern Data after the Correction Input



* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

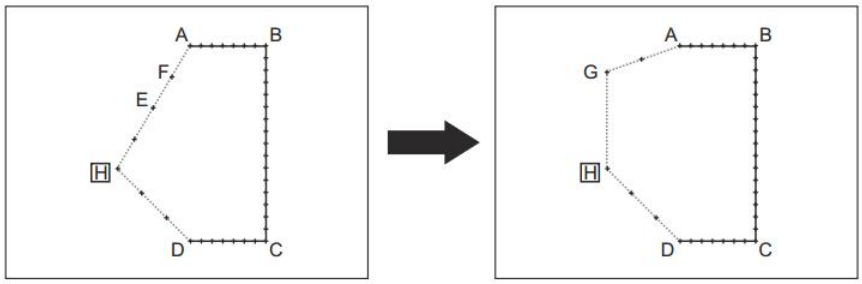
(Press  to cancel the last correction data input and return to the original state）

Modify the Specified Position with the SKIP JOG Button Disabled.

(The process will become easier when the new pattern data is used as the datum)

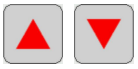
Operation Instruction 1, 2 and 3 remain unchanged. (The same as those mentioned above). The explanation starts from Operation Instruction 4.

【Example】As shown in the following diagram, the Data of Point E and F are to be replaced by the FEED Data of Point G.



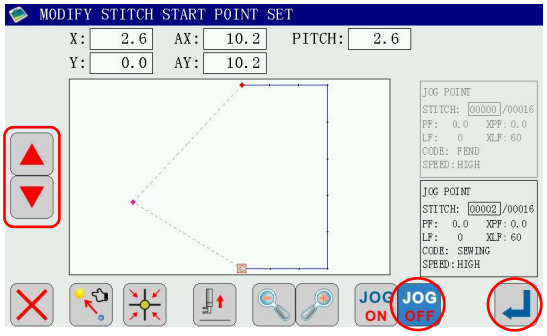
Step 1 to 3 are the same as those specified Modify FEED Data with the SKIP JOG button Enabled.

4 . Confirm the Range of the Section to be modified.

* Press the JOG ON buttons:  to shift The Zero Position to be beneath the needle (the Start Point of the section to be modified) and then Point A (the End Point of the section to be modified) to be Beneath the needle.

* Disable the SKIP JOG Function  。

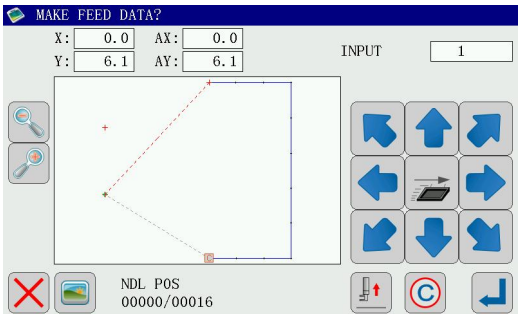
* Press  to confirm.





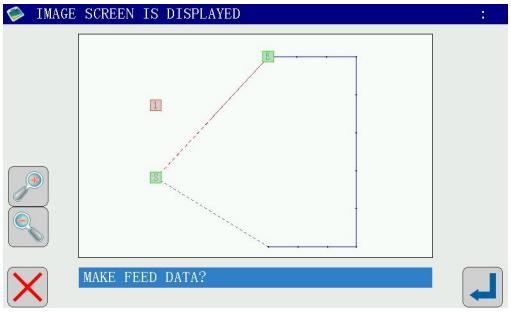
Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

5 . Shift the New Point to be beneath the Needle and Confirm.



* Shift Point G to be beneath the needle by Shifting Button.
  (New Position after Correction Input).
* Press  to confirm.
* If more positions are to be modified, repeat the Operation Instruction 5 until all points have been input. (The points input will be increased).
* After all position corrections have been confirmed, press  again to confirm.

6 . To Execute the Section Correction Input?

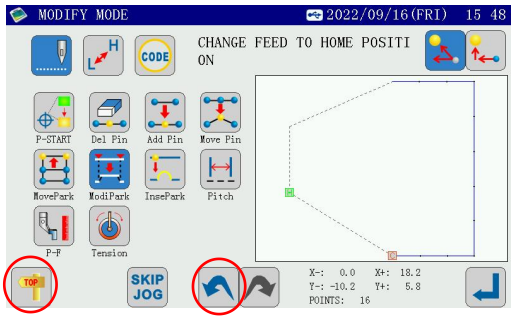


* Press  to confirm.
  (The Section Correction Function will be executed)



Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

7 . Verify the Pattern Data after the Correction Input



* Exit from Correction Mode Group.

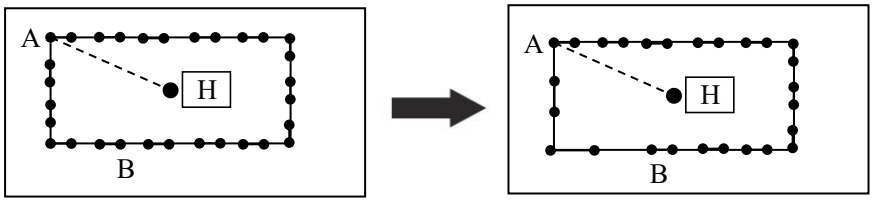
Press 

， Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

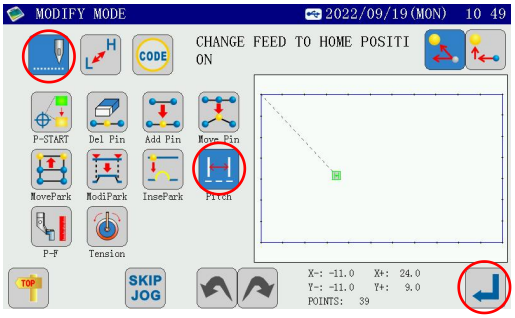
(20) Modify Stitch Length (in a Specified Range)

【Example】As shown in the following diagram, the Stitch Length within the section Ranged between Point A and B is to be modified.
(3.0mm7.0mm)



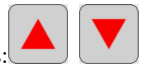
Operation Instruction

1 . Select the Stitch Length Correction Function Mode

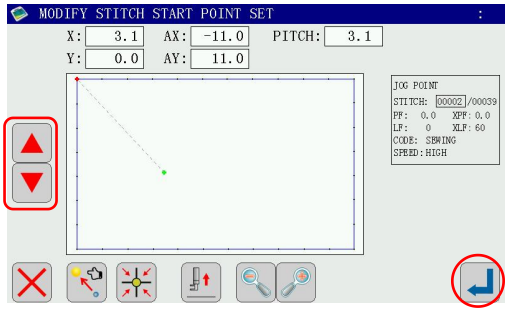


* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group).
* Press the Button for Stitch Data Change  and press  for Section Correction.
* Press  to confirm.
The next page will be displayed.

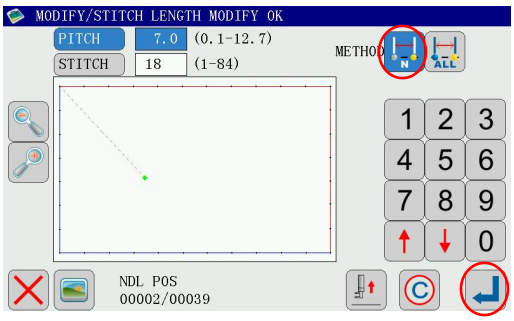
2 . Confirm the Range of the Section to be modified. (Start Point)

* Press the JOG ON buttons:  to shift Point A to be beneath the needle (the position of Start Point)

* Press  to confirm.



3 . Set the Correction Mode



* Set the correction mode.

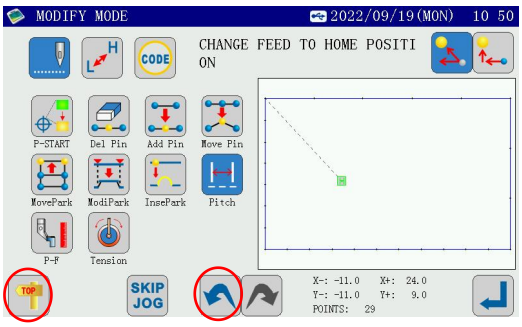
: To modify the Stitch Length within a specified range.

: To modify the Stitch Length of all stitches after a specified position.

(In this case, shall be selected to Modify the Stitch Length within a specified range.)

* To modify the Stitch Length within a Specified range, set 18 stitches as the value of Number of stitches to be modified.
* Set 7.0mm as the value of Stitch Length.
* Press to confirm.

4 . Verify the Pattern Data after the Input of Stitch Length Correction.

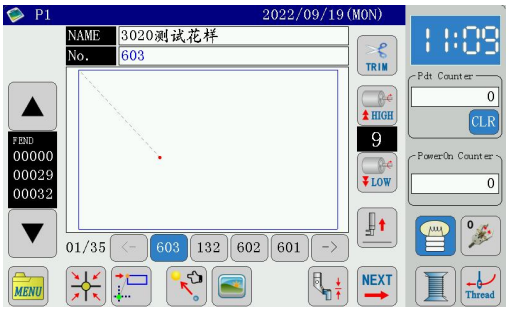


* Exit from Correction Mode Group.

Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

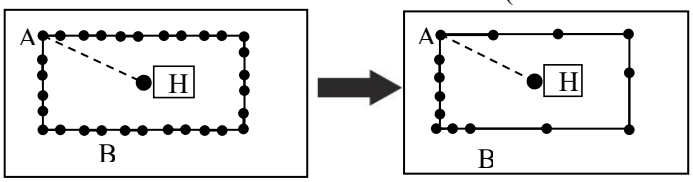
5 . Verify the Pattern Data again under the Standard Interface.



* The Stitch Length has been modified.

(21) Modify Stitch Length (All Stitches after a Specified Position)

【Exam1ple】As shown in the following diagram, the Stitch Length of all stitches from Point B to the End Point is to be modified.(3.0mm->9.0mm)

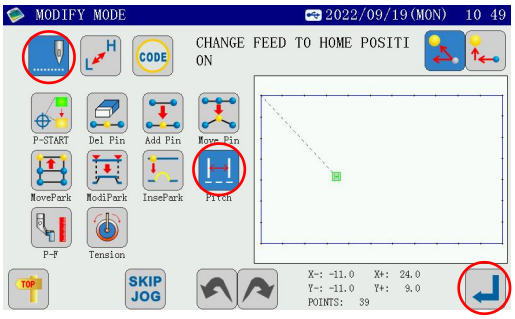


Operation Instruction

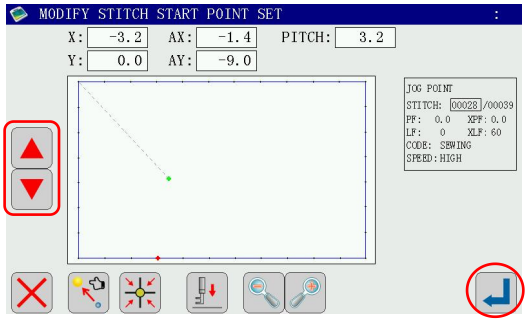
1 . Select the Stitch Length Correction Function Mode

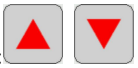
* Enter into Correction Mode Group Interface.
  (Refer to the methods specified in the Access to Correction Mode Group).
* Press the Button for Stitch Data Change  and press  for Section Correction.
* Press  to confirm.

The next page will be displayed.



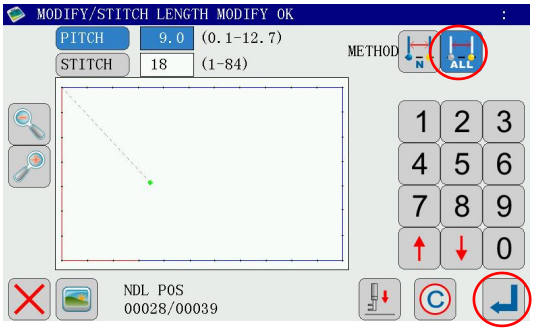
2 . Confirm the Range of the Section to be modified. (Start Point)



* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of Start Point)

* Press  to confirm.

3 . Set the Correction Mode



* Set the correction mode.

 : To modify the Stitch Length within a specified range.

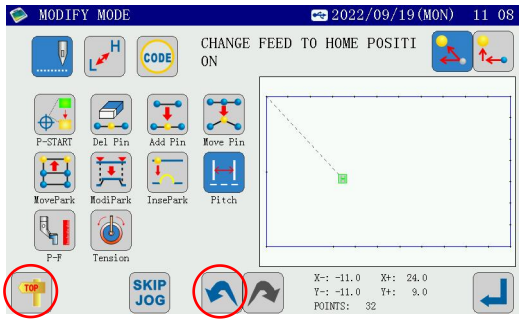
 : To modify the Stitch Length of all stitches after a specified position.

(In this case,  shall be selected to modify the stitch length of all stitches after a specified position)

* Set 9.0mm as the value of [Stitch Length].

* Press  to confirm.

4 . Verify the Pattern Data after the Input of Stitch Length Correction.



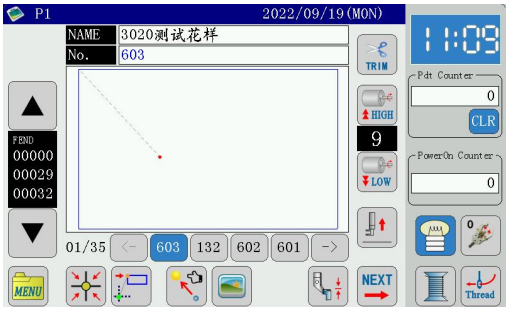
* Exit from Correction Mode Group.

Press 

, Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

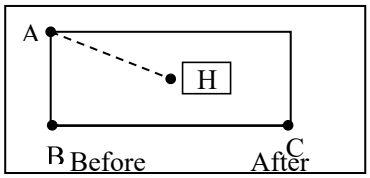
5 . Verify the Pattern Data again under the Standard Interface.



* The Stitch Length has been modified

(22) Modify of Pressure foot height (All Points after a Specified Position)

【Example】As shown in the following diagram, the height of all points between Point B to C be modified to 2.0mm).



	Before	After
A->B	0.0mm	0.0mm
B->C	0.0mm	2.0mm

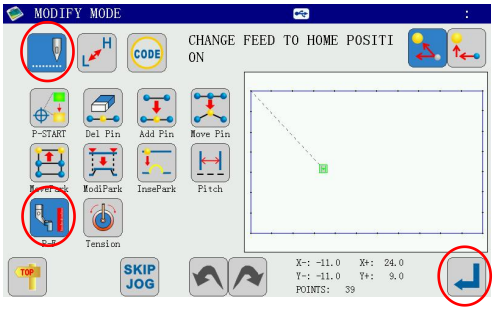
Operation Instruction

1.Select the Pressure foot height Function Mode

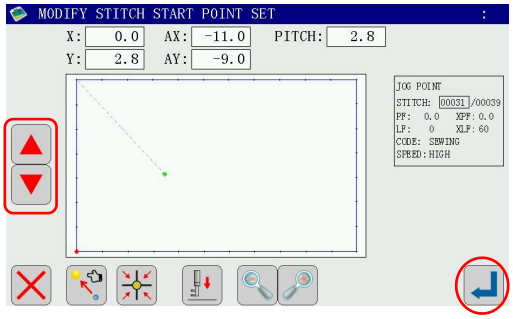
* Enter into Correction Mode Group Interface.
(Refer to the methods specified in the
Access to Correction Mode Group).
* Press the Button for Stitch Data Change

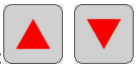
 and press  for Section Correction.

* Press  to confirm.
The next page will be displayed.



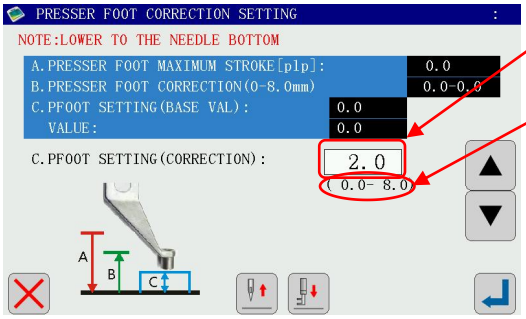
2 . Confirm the Start Point of the Section to be modified.

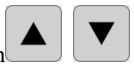


* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

3 . Set the Pressure foot height



* Press the button  to Modify current value of the pressure foot height
The range of the current pressure foot can be modified

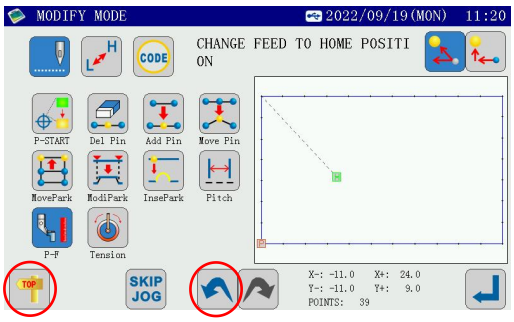
* Press  set pressure foot height to 2.0.（The height of the presser foot changes with the set value during the adjustment.）

* Press  to confirm.

* Press  to cancel the last correction data input and return to the original state)。

Note:
When adjusting the height of the intermediate presser foot, first set the pressure foot to the down state. If not, press  .

4 . verify the pattern data after the correction of the pressure foot

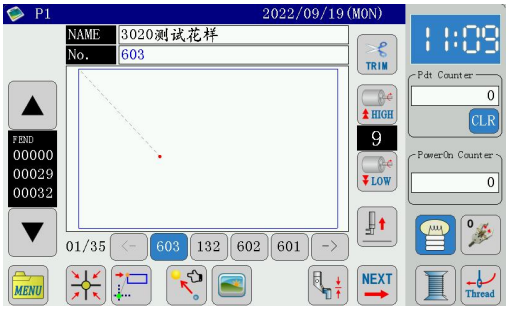


* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

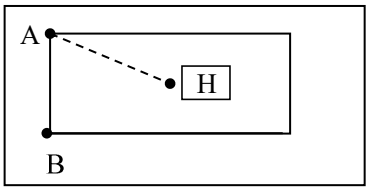
5 . Verify the Pattern Data again under the Standard Interface.



* The Pressure foot height has been modified.

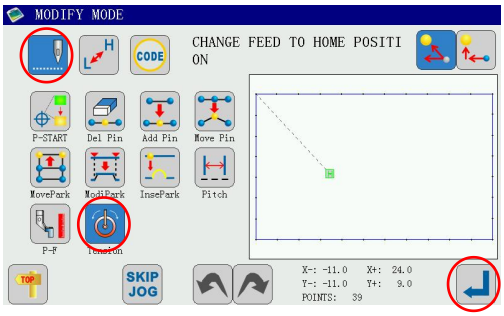
(23) Modify of the tension value of clamp

【Example】The pattern data of the following figure changes the tension value of the clamp at position B to 80%.



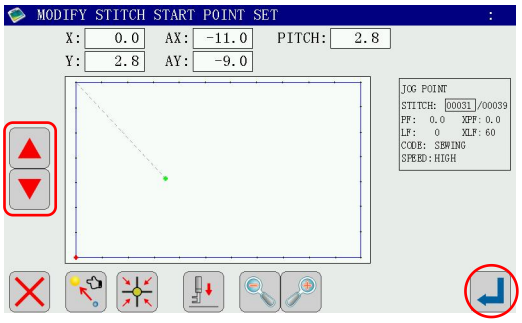
Operation Instruction

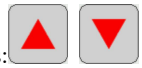
1 . Select the tension value of clamp Function Mode



* Enter into Correction Mode Group Interface.
(Refer to the methods specified in the Access to Correction Mode Group).
* Press the Button for Stitch Data Change  and press  for Section Correction.
* Press  to confirm.
The next page will be displayed.

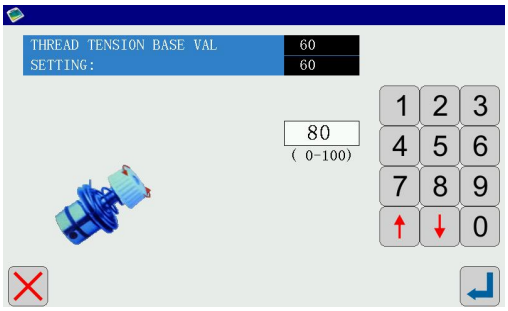
2 . Confirm the Start Point of the Section to be modified.



* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

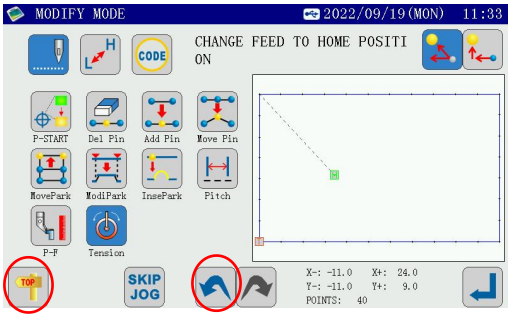
3 . Set the tension value of clamp



* Press number buttons,set value 80。

* Press  to confirm.

4 . verify the pattern data after the correction of the tension value of clamp



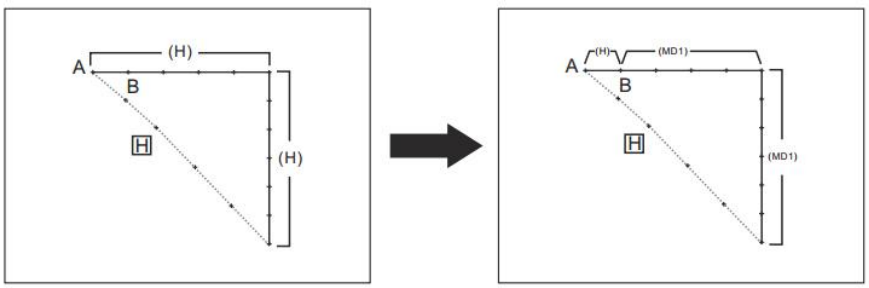
* Exit from Correction Mode Group.

Press  , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

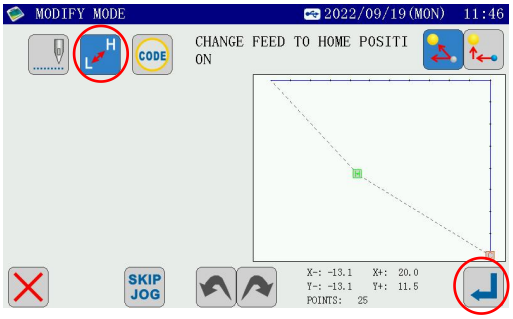
(24) Modify Speed Command (All Points after a Specified Position)

【Example】As shown in the following diagram, the Speed of all points after Point B is To be modified to Medium High Speed (Md1).



Operation Instruction

1. 1 . Select the Speed Command Correction Function Mode



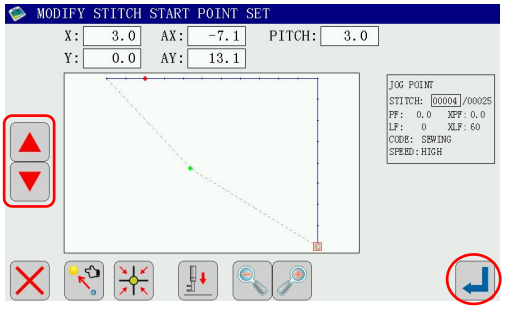
* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group).

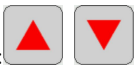
* Press  for Speed Command Correction.

* Press  to confirm.

The next page will be displayed.

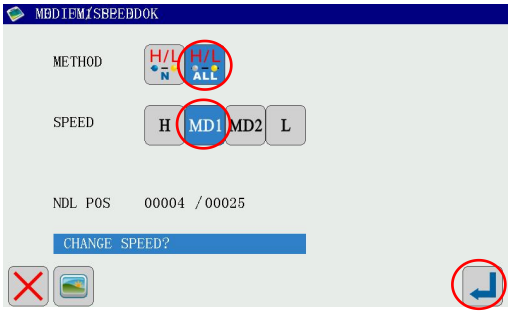
2 . Confirm the Start Point of the Section to be modified.



* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

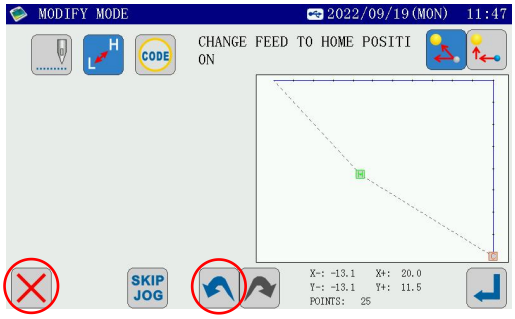
3 . Set the Correction Mode and Speed



* Press H/L ALL programmed to change the Speed of all points after a specified position and then Press MD1 select MD1 as the value of Speed.

* Press ↵ to confirm. (The Speed Correction Input will be executed)

4 . Verify the Pattern Data after the Speed Correction Input.



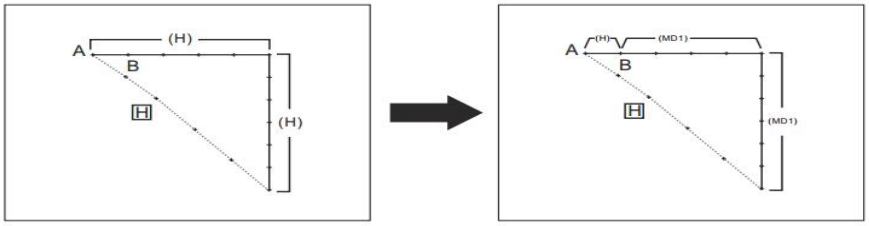
* Exit from Correction Mode Group.

Press ✕ , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press ↶ to cancel the last correction data input and return to the original state）

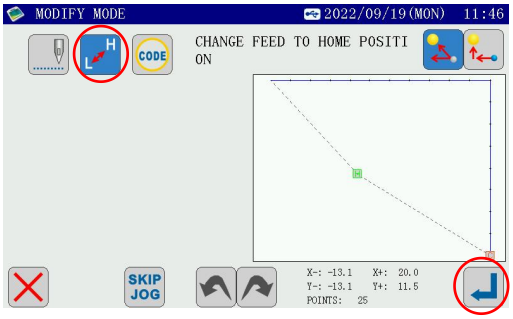
(25) Modify Speed Command (N Stitches after a Specified Position)

【Example】 As shown in the following diagram, the Speed of 10 stitches after Point B is to be modified to Medium High Speed (Md1).



Operation Instruction (Modify the Speed of N Stitches after a Specified Position)

1. Select the Speed Command Correction Function Mode

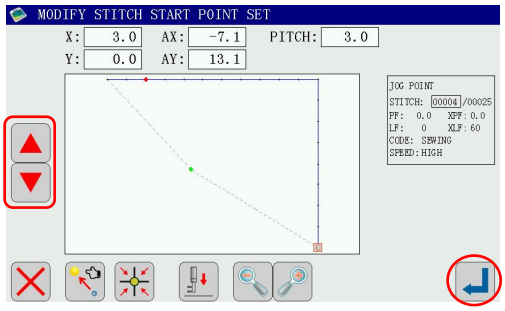


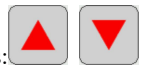
* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group).

* Press  for Speed Command Correction.

* Press  to confirm. The next page will be displayed.

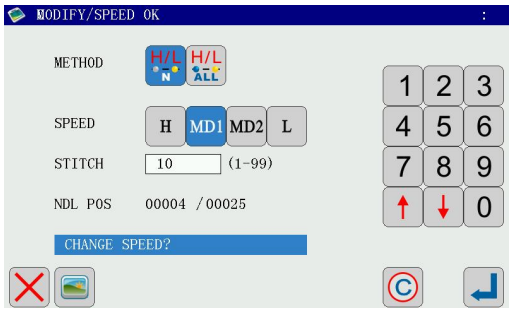
2 . Confirm the Start Point of the Section to be modified.



* Press the JOG ON buttons:  to shift Point B to be beneath the needle (the position of the stitch to be modified)

* Press  to confirm.

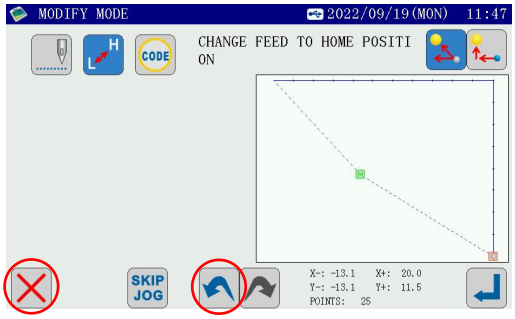
3 . Set the Correction Mode and Speed



* Press H/L N programmed to change the Speed of N Stitches after a specified position, set 10 as the number of stitches and then Press MD1 select MD1 as the value of Speed .

* Press to confirm.
(The Speed Correction Input will be executed)

4 . Verify the Pattern Data after the Speed Correction Input.



* Exit from Correction Mode Group.

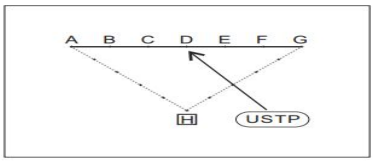
Press , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press to cancel the last correction data input and return to the original state）

(26) Modify Additional Function (Add Additional Function)

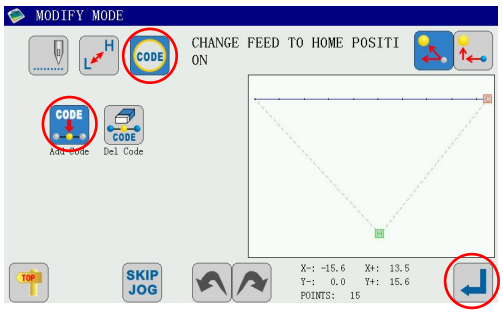
Note: Please refer to 3-51 Input Additional Functions / List of Additional Functions

【Example】As shown in the following diagram, [Needle Up Stop (USTP)] Function is to be added at Point D.



Operation Instruction

1. Select Additional Function Supplementation Function Mode.



* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group).

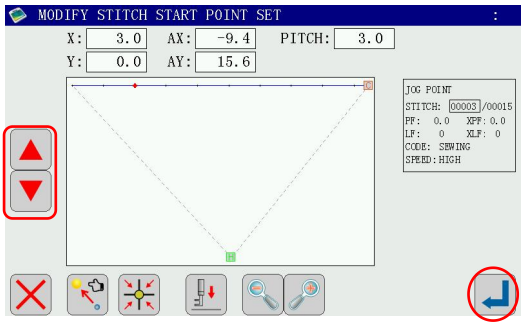
* Press CODE programmed to change additional function and then Press CODE to add additional function.

* Press ↵ to confirm. The next page will be displayed.

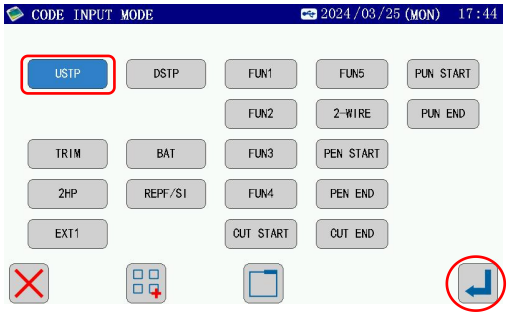
2 . Confirm the Position for Additional Function Supplementation.

* Press the JOG ON buttons: ▲ ▼ to shift Point D to be beneath the needle (the position of the stitch to be modified)

* Press ↵ to confirm.



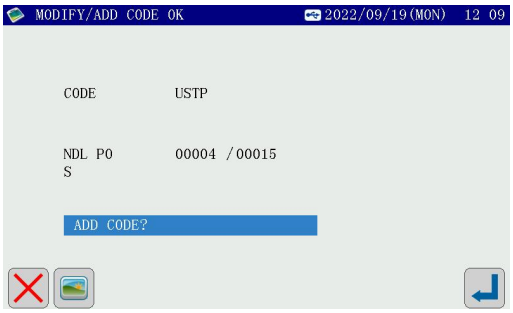
3 . Set the Additional Function to be added



* Press USTP programmed for NEEDLE up temporary stop.

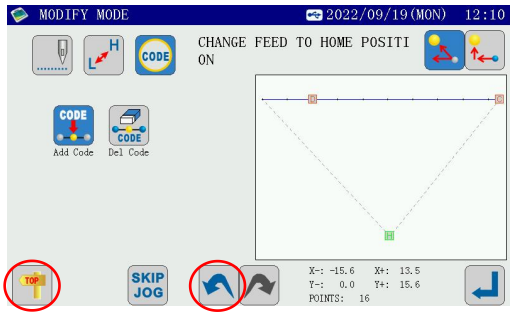
* Press  to confirm.

4 . To Execute Additional Function Supplementation?



* Press  to confirm.
(The Input of Additional Function Supplementation will be executed。)

5 . Verify the Pattern Data after the Correction Input.



* Exit from Correction Mode Group.

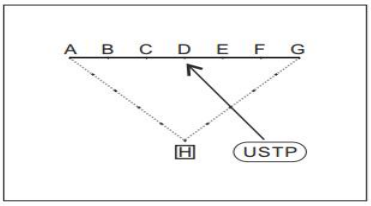
Press 

, Leave the modification module and en, return to the standard screen.

(Press  to cancel the last correction data input and return to the original state）

(27) Modify Additional Function (Delete Additional Function)

【Example】As shown in the following diagram, the [Needle Up Stop (USTP)] Function at Point D is to be deleted.



Operation Instruction

1. Select Additional Function Deletion Function Mode.

* Enter into Correction Mode Group Interface.
(Refer to the methods specified in the Access to Correction Mode Group).

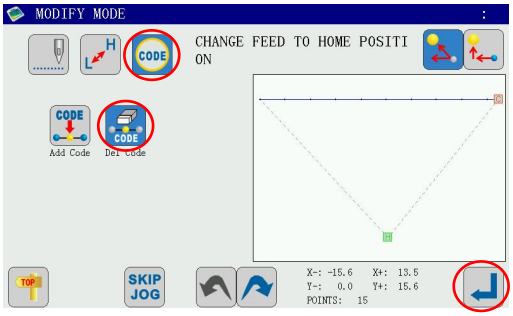
* Press 

programmed to change additional function and then press 

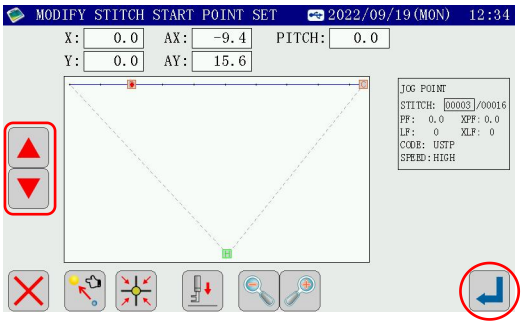
to Delete additional function.

* Press  to confirm.

The next page will be displayed.



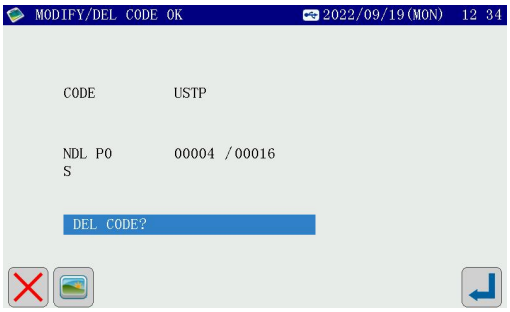
2 . Confirm the Position for Additional Function Deletion.



* Press the JOG ON buttons: ▲ ▼ to shift Point D to be beneath the needle (the position of the stitch to be modified)

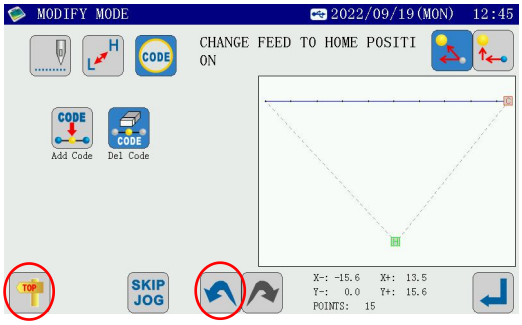
* Press ↵ to confirm.

3 . To Execute Additional Function Deletion?



* Press ↵ to confirm.
(The Input of Additional Function Deletion will be executed)

4 . Verify the Pattern Data after the Correction Input.



* Exit from Correction Mode Group.

Press TOP , Leave the modification module and enter the save pattern screen. After saving pattern, return to the standard screen.

(Press ↶ to cancel the last correction data input and return to the original state）

8、Data Change Mode Group

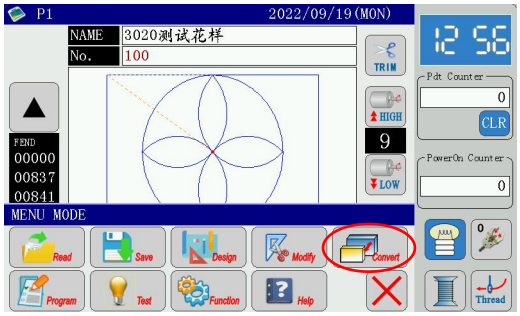
(1) Main functions of Data Change Mod

Data Change Group is programmed to realize the functions as follows:

Function	Buttons	Content	Detailed Settings	
Zero- point Correction		Set the displace amount of Zero-point	 Zero-point Correction Enabled  Zero-point Correction Disabled	
Start and End Back stitch		Not only modify the existing backstitch but also create new one.	 Start & End Backstitch  Overlapping Stitch (Only applicable to continuous figures)	
Z-shaped Stitch		Not only modify the existing Z-shaped stitch but also create new ones.		
Zoom-in and out		Set a specified point as the datum And magnify / reduce X axis or Y axis separately with unchanged Stitch Length or Stitch Number.	<Datum Point>  Specified Position  Pattern center  Zero-point	 Number Fixed Stitch  Length Fixed Stitch
Creation of Axial Symmetry Image		Create X-axis, Y-axis or XY-axis Symmetry.	<Options>  Delete old pattern  Keep old pattern	
Rotation around a point		Rotate an image by any degrees around any point.	<Datum>  Specified Position  The center of a pattern  Zero-point	
Strengthening Stitches		Change the distance and direction of existing Strengthening Stitches		
Multiple Stitches		Change the distance,direction and times of existing Multiple Stitches.		

Swap Start and End		Swap the Start and End of Select section	
Needle angle		Change needle angle mode and setting values	 Restore to auto follow mode  Set needle following angle
Shrinkage seam		Continuous sewing section shrinkage seam conversion	
Copy		Select continuous sewing segments to perform copy conversion	 Copy the continuous section where the needle point is located  Copy all patterns
Model correction		Correct the template for the entire pattern shape	 Pan adjustment  Rotation adjustment  Rotate Zoom Adjustment

(2) Access to Data Change Mode Group

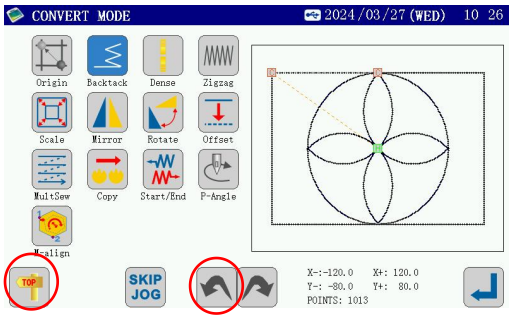


* Press 

under Standard Interface and Then press 

for Data Change Mode Group.

(3) Exit from Data Change Mode Group



* Exit from Correction Mode Group Press 

to return to Standard Interface.

(Press  to cancel the last correction data input and return to the original state).

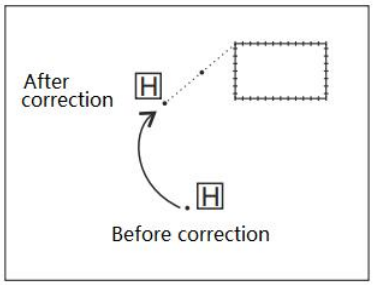
(4) Verify a Pattern after Data Change Input (Under Data Change Mode Group)

(Please refer to (5) Verification on Patterns after Data Input / Explanations Applicable for Correction Mode Group and Data Change Mode Group)

(5) Zero Point Correction

Note: Only pattern data in M format is supported.

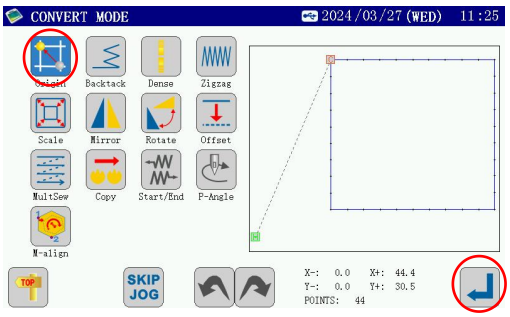
【Example】As shown in the following diagram, the Mechanical Zero-point is to be Corrected by an electrical equipment with 0.1mm as the minimum unit and 12.7mm as the scope of the displacement



Note: Please keep the position correction to be below 12.7mm

Operation Instruction

1.Select the Zero-point Correction Function Mode



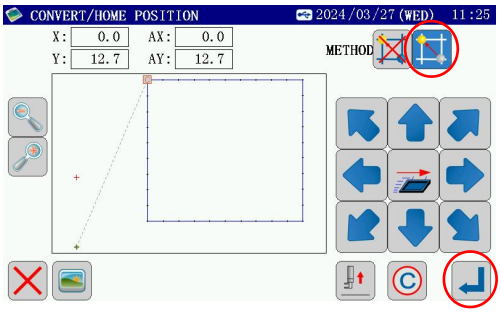
* Enter into Correction Mode Group Interface. (Refer to the methods specified in the Access to Correction Mode Group).

* Press  for Zero-point Correction

* Press  o confirm.

Pay attention to the Stop Position of the needle as the outer presser foot will automatically shift to the Start Point when the End Point is confirmed.

2 . Confirm the New Zero Position.



* Press  for Zero-point Correction function

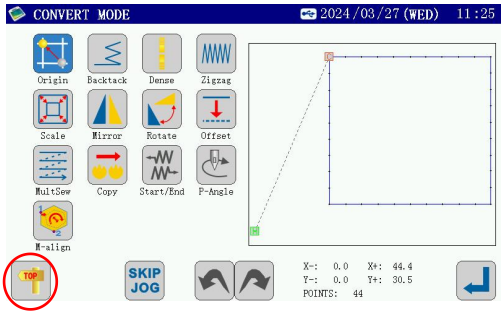
 : Zero-point Correction Disabled.

 : Zero-point Correction Enabled.

* Shift Point H to be beneath the needle by Shifting Button.
(The New Zero Position)

* Press  to confirm.

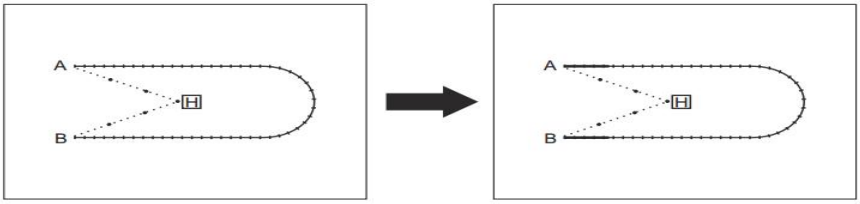
3 . Verify the Pattern Data after Data Change Input.



* Exit from Correction Mode Group. Press  to return to Standard Interface.

(6) Start and End Backstitch

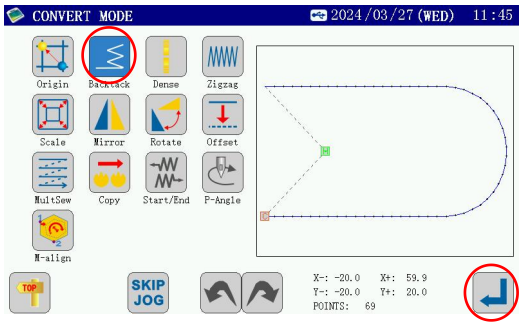
【Example】As shown in the following diagram, the Start and End Backstitch in the Pattern from the Stitch Start Point (Point A) to the End Point (Point B) is to be changed or new Start and End Backstitch is to be added to the pattern.



(Bold line indicates Backstitch)

Operation Instruction

1.Select the Backstitch Function Mode.



* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

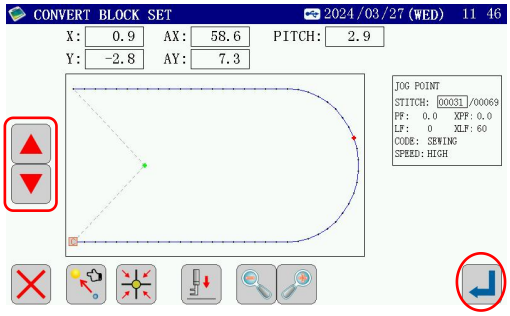
* Press  for Backstitch Function.

* Press  to confirm.

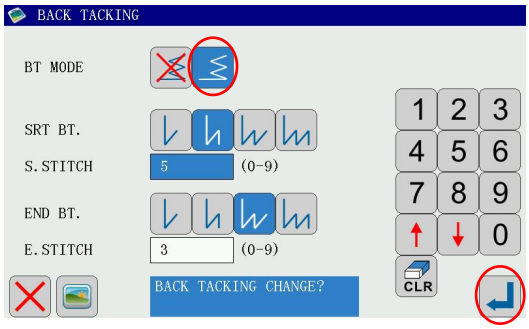
2 . Confirm the Section for Backstitch Change

* Shift any point between Point A and B to Be beneath the needle by JOG ON buttons. (the section where the Backstitch is to be changed)

* Press  to confirm.



4 . Set the Backstitch Details



* Press  for Start and End Backstitch Function.

Note: If the pattern to be processed is [Continuous Figure], the Overlapping Stitch Function Mode will be displayed for you to select.

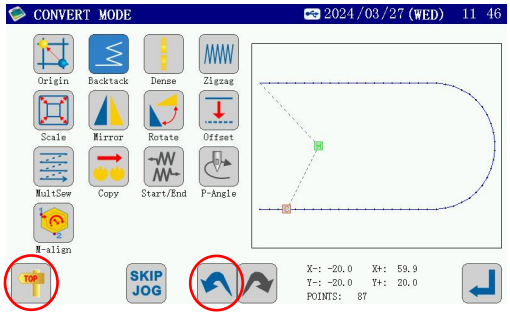
(In this case, the Overlapping Stitch Function Mode will not be displayed.)

* Press  to set N-shaped Backstitch as the Start Backstitch and set 5 as the number of Start Backstitch.

* Press  to set N-shaped Backstitch as the End Backstitch and set 3 as the number of End Backstitch.

* Press  to confirm.

5 . Verify the Pattern Data after the Data Change Input.

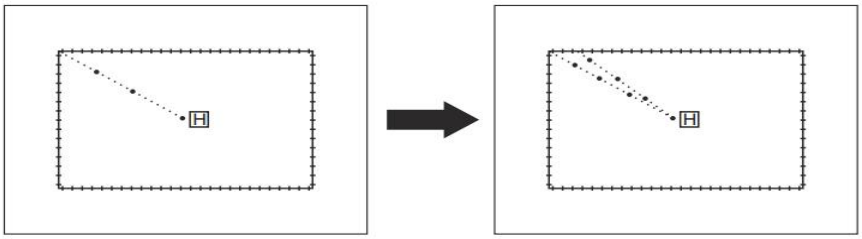


* After verify the new pattern, press  to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

(7) Overlapping Stitch

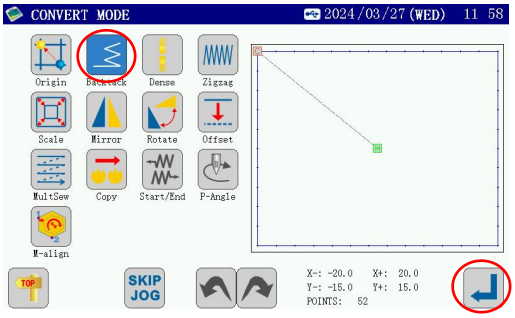
【Example】 As shown in the following diagram, the Overlapping Stitch in the pattern is to be changed or new Overlapping Stitch is to be added to the pattern.



(Bold Line indicates Overlapping Stitch)

Operation Instruction

1. Select the Backstitch Function Mode.



* Enter into Change Mode Group Interface.
(Refer to Data Change Mode Group / Access to Data Change Mode Group).

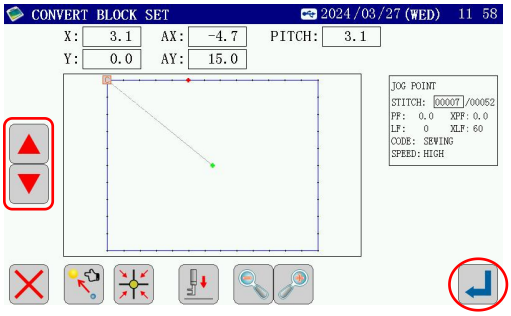
* Press  for Backstitch Function.

* Press  to confirm.

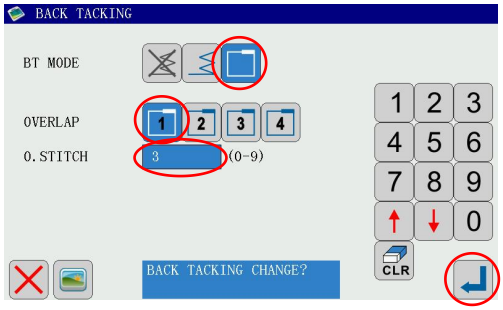
2 . Confirm the Section for Backstitch Change

* Shift the section where the Backstitch data Is to be changed to be beneath the needle By JOG ON buttons.

* Press  to confirm.



3 . Detailed setting of Backstitch

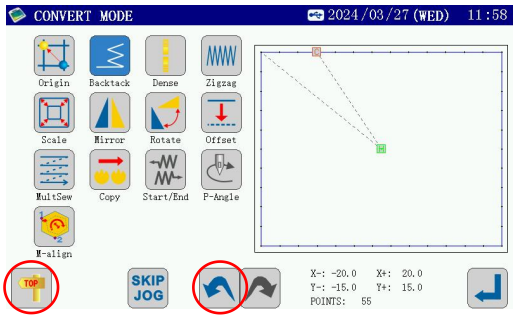


* Press  for Backstitch Function.
Note: If the pattern to be processed is [Continuous Figure], the Backstitch Function Mode will be displayed for you to select.

* Press to set 1 as the Time for Backstitch Sewing and set 3 as the number of Backstitch .

* Press  to confirm.

5 . Verify the Pattern Data after the Data Change Input.



* After verify the new pattern, press  to end Data Input Process and exit from Data Change Mode Group.

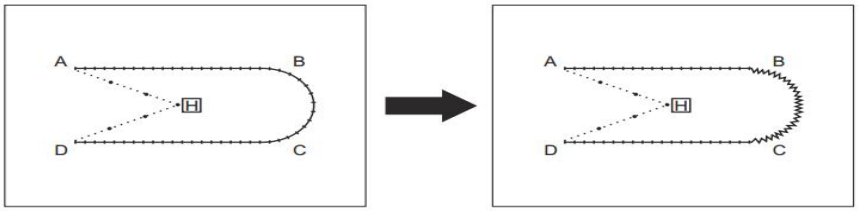
(Press  to cancel the last input and Return to the original state.）

(8) Z-shaped Stitch

Note: Only pattern data in M format is supported.

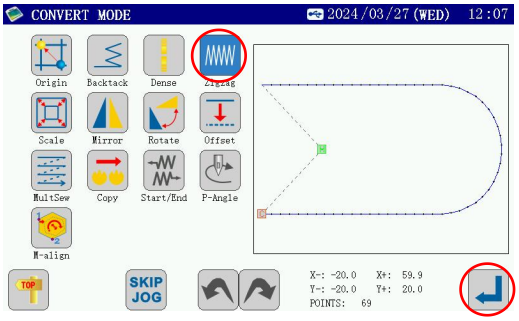
【Example】As shown in the following diagram, the Z-shaped Stitch in the Circular Arc Pattern from Point B to C is to be changed or new Z-shaped Stitch is to be added to the pattern.

(Point A to B = Straight Line, Point B to C = Circular Arc, Point C to D= Straight Line)



Operation Instruction

1. Select the Z-shaped Stitch Function Mode.

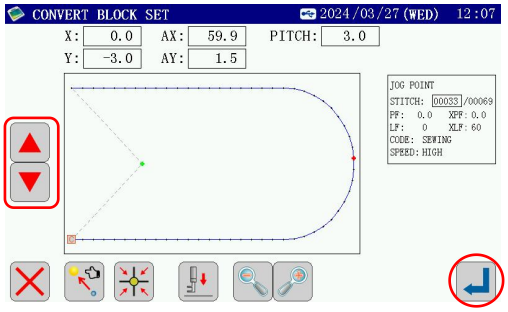


* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Z-shaped Stitch Function

* Press  to confirm.

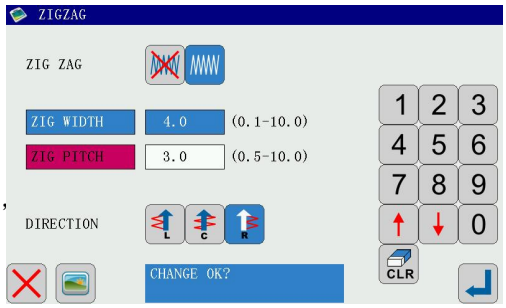
2 . Confirm the Section for Z-shaped Stitch Change.



* Shift any point of the Circular Arc from Point B to C to be beneath the needle by JOG ON buttons.
(The section where the Z-shaped Stitch is to be changed)

* Press  to confirm.

3 . Set the Z-shaped Stitch Details.



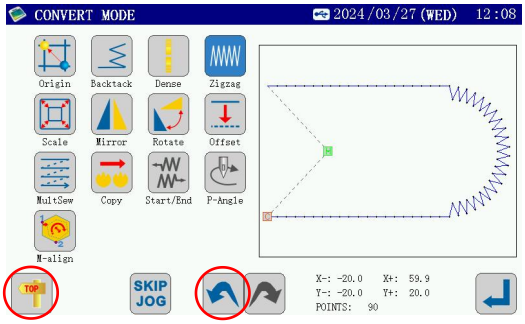
* Press  to select the type of Z-shaped Stitch.

* Set the Amplitude of Z-shaped Stitch =4.0 and the Pitch of Z-shaped Stitch = 3.0.

Press  to set the Swing Direction of the shaped Stitch.Refer to (12) Instruction on Z-shaped Stitch Data Input for details of setting the Amplitude, Pitch and Swing Direction of Z-shaped Stitch.

* Press  to confirm.

5 . Verify the Pattern Data after the Data Change Input.

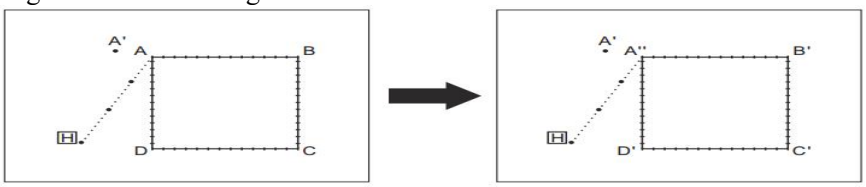


* After verify the new pattern, press  to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

(9) Magnify and Reduce Pattern

【Example】As shown in the following diagram, X axis is to be reduced by 50% and Y axis75% under the condition that Point A' is set as the Datum Point and the Stitch Length remains unchanged.



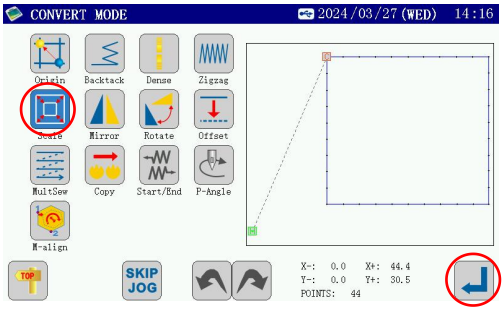
Operation Instruction

1, Select the Zoom-in / out Function Mode.

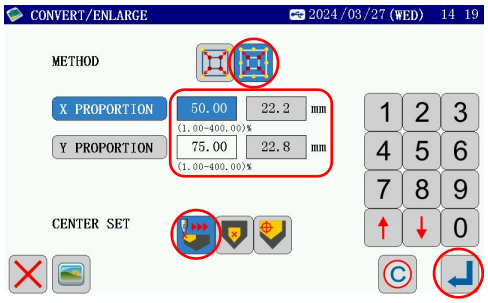
* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  or Zoom-in/out Function.

* Press  to confirm.



2 . Set the Zoom-in/out Details.



* Details

 : Zoom-in/out with Stitch Number unchanged

 : Zoom-in/out with Stitch Length unchanged

*To set the Magnification (Reduction) Factor by numerical buttons or arrow keys:↑、 ↓.

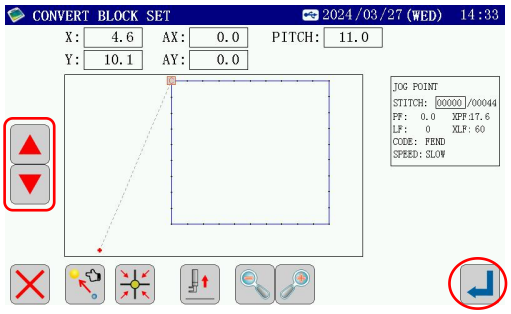
* Define the Datum Point.

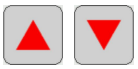
 : To define any point as the Datum Point by JOG ON buttons.

 : To define the center of a pattern as the Datum Point.

 : To define any point as the Datum Point by JOG ON buttons] shall be pressed.

3 . Set the Datum Point

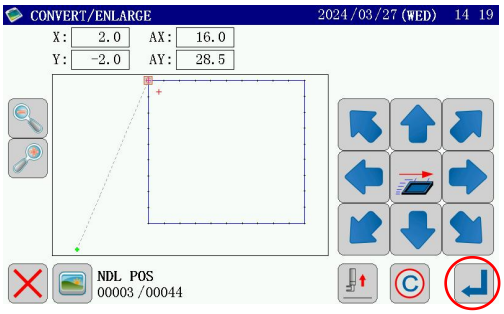


* Press the JOG ON buttons:  to shift Point A to be beneath the needle (The Datum Point for Magnification/ Reduction)

* Press  to confirm.

Note: If JOG ON buttons are not used to set The Datum Point, the Datum Point can be set at a specified position.

Press  directly to confirm.

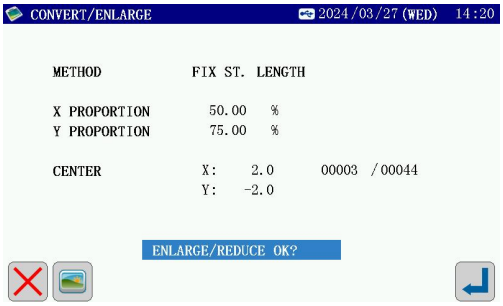


* If the Datum Point is outside of the pattern data, Shifting Buttons shall be used to shift Point A' to be beneath the needle.

* Press  to confirm.

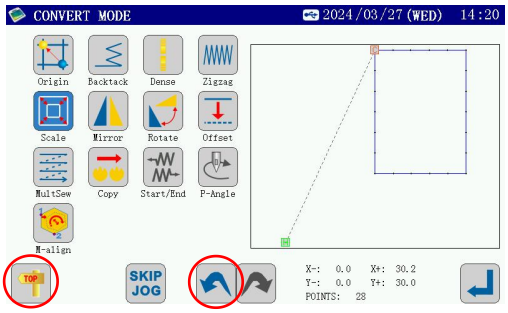
Note: If the Datum Point is within the pattern data,Press  directly instead of Shifting Buttons.

4 . To Execute Zoom-in /out Data Input?



* Press  to confirm.

5 . Verify the Pattern Data after the Data Change Input.



* After verify the new pattern, press  to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

Note 1: Circle magnification / reduction
For M-type Pattern Data (No.600 to 799): no matter the magnification / reduction factor of X and Y axis is the same or not, the new pattern will still be a circle.
For B-type Pattern Data (No. 400 to 499) and A-type Data (No.100 to 299): When the magnification / reduction factor of X and Y axis is different, the new pattern will be an oval.

Note 2: Z-shaped Stitch, Multiple Stitch and Strengthening Stitch Magnification / Reduction
For B-type Data (No.600 to 799): Z-shaped Stitch, Multiple Stitch and Strengthening Stitch Magnification/Reduction, the following parameters can not be magnified / reduced.
(Especially for the Strengthening Stitch Magnification / Reduction, some function modes can not work)
*The [Pitch] and [Amplitude] of a Z-shaped Stitch can not be magnified reduced.
*The distance between Multiple-stitches can not be magnified / reduced.
*The distance between Strengthening Stitches can not be magnified / reduced.
(To change the above data, please do not use the Zoom-in/out Function Mode. Please Select the (8) Z-shaped Stitch Data Change Function Mode, (13) Multiple -stitch Data Change Function Mode and (12) Strengthening Stitch Data Change Function Mode to change the above mentioned data.
In the case below, after magnifying Pattern [A], the Multiple-stitches generated by B-type Data, to 200% in the X-axis direction, the distances between Multiple-stitches remain unchanged, as shown in Pattern [B].

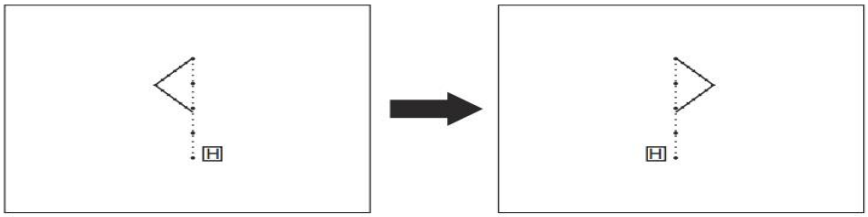


[A] [B]

Note3: For the Z-shaped Stitch Magnification / Reduction Function Mode, the setting for [Stitch Number Remain Unchanged / Stitch Length Remain Unchanged] is explained as follows:
For M-type Data (No.600 to 799): Z-shaped Stitch Magnification/Reduction / [Stitch Number Remain Unchanged / Stitch Length Remain Unchanged] can not be accepted.
(To change the above data, (8) Z-shaped Stitch Data Change Function Mode or (15) Section Correction Function Mode can be selected.)

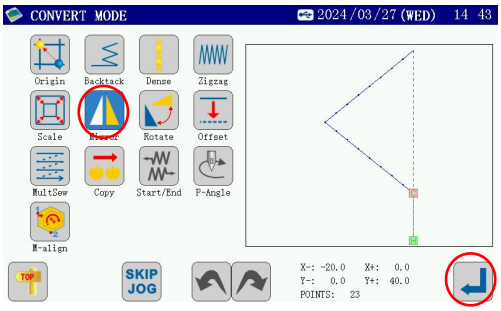
(10) Create Symmetry Figure

【Example】 As shown in the following diagram, the left pattern is to be changed to the Right pattern.



Operation Instruction

1. Select the Function Mode for Creation of Axially Symmetric Figure.

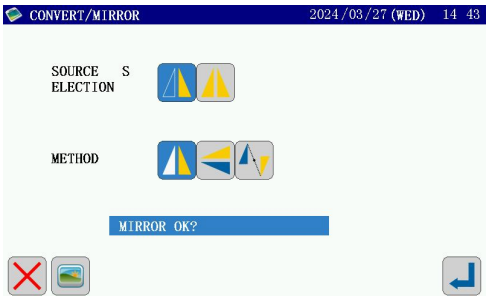


* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  to programmed to create Symmetric Figure.

* Press  to confirm.

2 . Set the Details of Symmetric Image / Execute



* Selection of original patterns

 : After the symmetric figure is created,delete the old figure.

 : After the symmetric figure is created,keep the old figure.

* Symmetry direction:

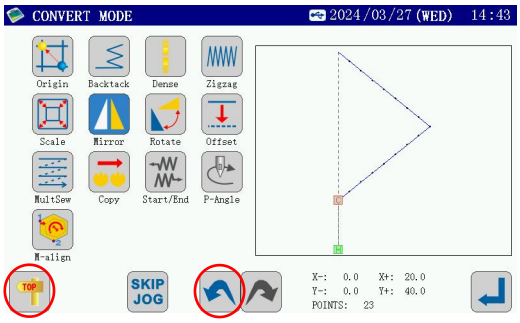
 : X-axis Symmetry

 : Y-axis Symmetry

 : XY axis Symmetry

* Press  to confirm.

3 . Verify the Pattern Data after the Data Change Input



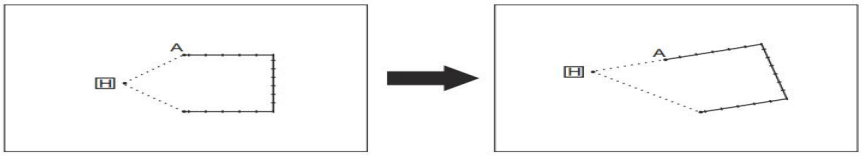
* After verify the new pattern, press 

to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.)

(11) Rotate a Figure by Any Degrees around Any Point

【Example】 As shown in the following diagrams, the left side Pattern is to be rotated around the Datum Point A by 45 degrees.



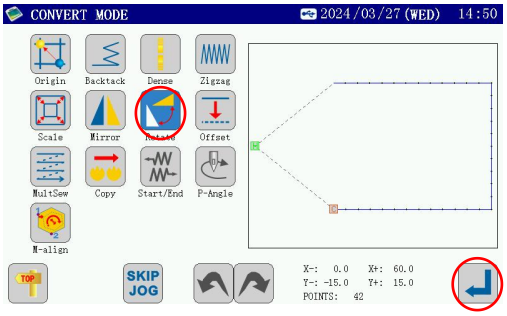
Operation Instruction

1. Select the Function Mode for Rotation of Figure.

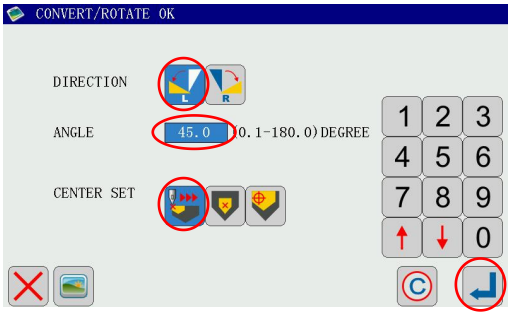
* Enter into Change Mode Group Interface.
(Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Rotation of Figure.

* Press  to confirm.



2 . Set the Details of Rotation



* Options for Rotation Direction:

: Rotate Anti-clockwise

: Rotate Clockwise.

Degrees of Rotation Set by Numerical Buttons.
(In this case, the degree is set as 45 Degree)

* Define the Datum Point:

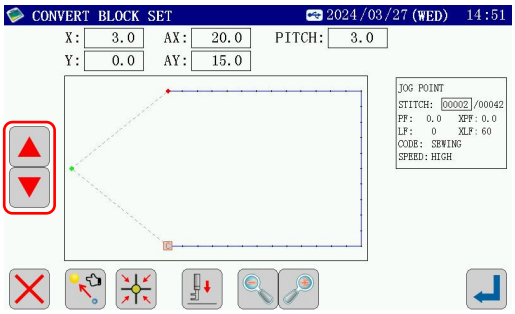
: Define any point as the Datum Point by JOG ON buttons.

: Define the center of a pattern as The Datum Point.

Define the Zero-point as the Datum Point.

* Press to confirm.

3 . Set the Datum Point

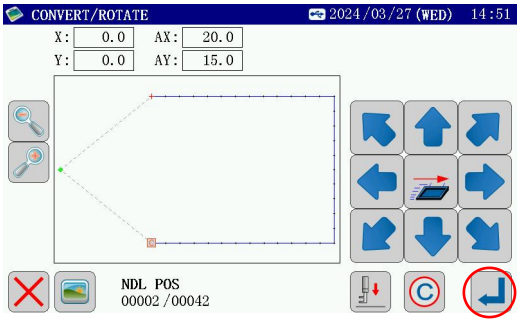


* Press the JOG ON buttons: to shift Point A to be beneath the needle

* Press to confirm.

Note: If JOG ON buttons are not used to set The Datum Point, the Datum Point can be set at a specified position.

Press directly to confirm.

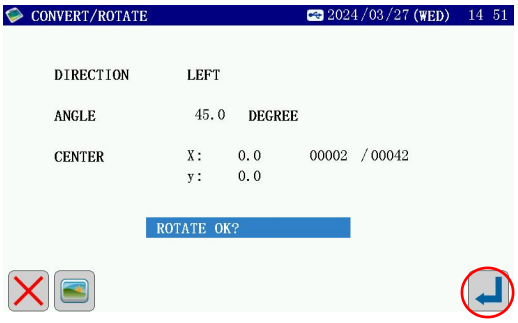


* If the Datum Point is outside of the pattern data,Shifting Buttons shall be used to shift Point A to be beneath the needle.

* Press to confirm.
Note: If the Datum Point is within the pattern data.

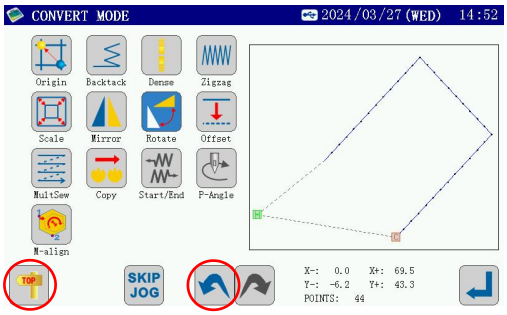
* Press directly instead of Shifting Buttons.

4 . To Execute the Input of Rotation of Figure?



* Press to confirm.

5 . Verify the Pattern Data after the Data Change Input.



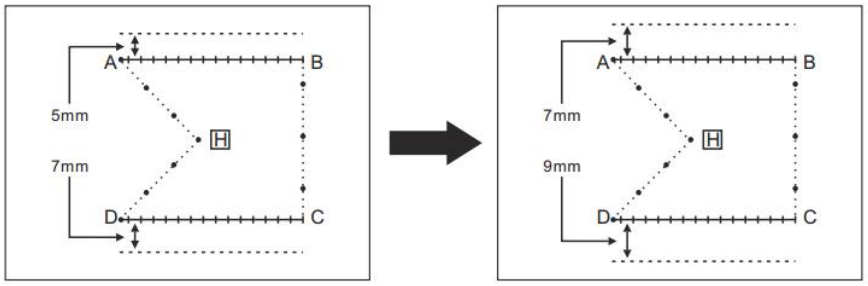
* After verify the new pattern, press 

to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

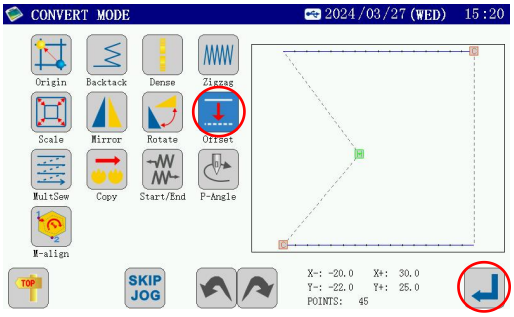
(12) Strengthening Stitch

Example】 As shown in the following diagrams, the distance between Strengthening Stitches in the left side Pattern Distance A - B and Distance C-D are to be changed to those in the right side Pattern Distance A '- B' and Distance C' - D'.
(Distance A - B: 5mm A' - B':7mm, Distance C - D: 7mm Distance C' - D': 9mm)



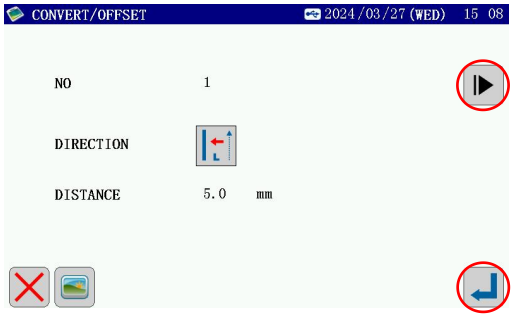
Operation Instruction

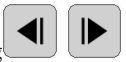
1.Select the Strengthening Stitch Function Mode.



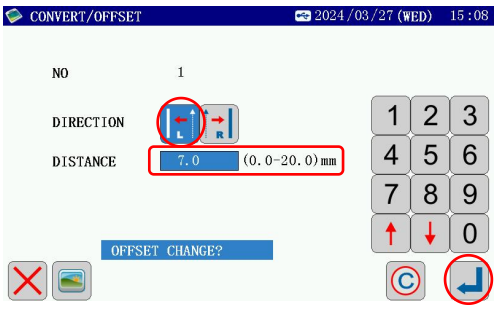
* Enter into Change Mode Group Interface.
  (Refer to Data Change Mode Group / Access to Data Change Mode Group).
* Press  for Strengthening Stitch.
* Press  to confirm.

2 . Select the Code of the First Group of Strengthening Stitch to be Changed / Verify.



* Select the code by pressing 
  (The codes input will be displayed in sequence:1,2,3)
  (In this case: code [1] shall be pressed.)
* Press  to confirm.

3 . Set the Details of Strengthening Stitch Distance Change/ Execute.



* Select the direction of the new Strengthening Stitches.



: At the Left Side of the Forward Motion

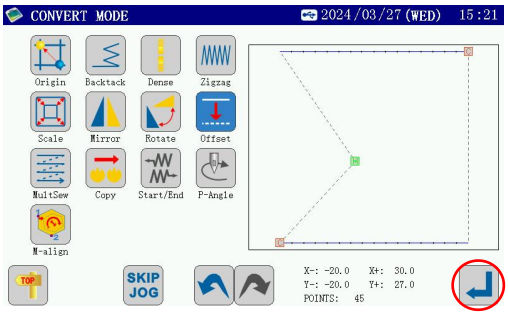


: At the Right Side of the Forward Motion

* Se t the New Distance
(In this case: [7mm] shall be set as the distance)

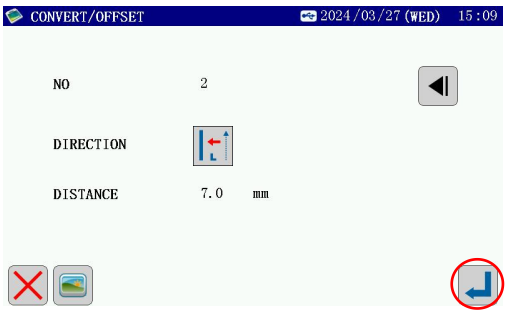
* Press  to confirm.

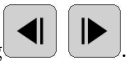
4 . End the Input Process of the First Strengthening Stitch Distance Change.



* Press  to start the Second Strengthening Stitch Distance Change.

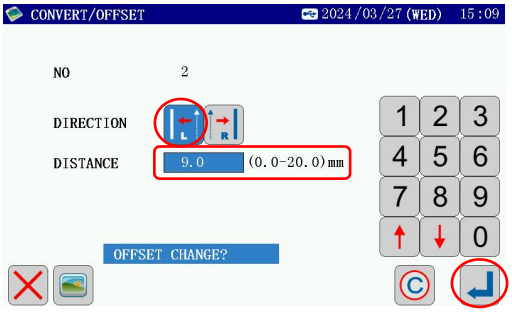
5 . Select the Code of the Second Group of Strengthening Stitches to be Changed / Verify.



* Select the code by pressing .
(The number 1, 2, 3... entered will be displayed in order.)
(Press 2 for select.)

* Press  to confirm.

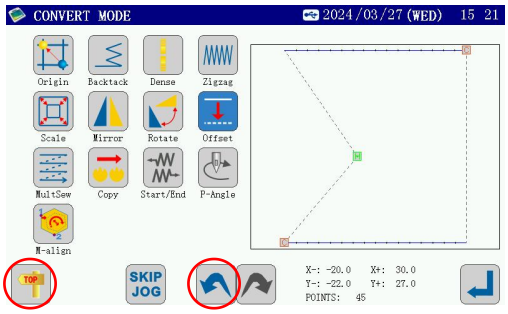
6 . Execute the Input of Strengthening Stitch Distance Change.



* Execute the Input of Strengthening Stitch.
 : At the Left Side of the Forward Motion
 : At the Right Side of the Forward Motion
* Se t the New Distance
(In this case: [9mm] shall be set as the distance)

* Press  to confirm.

7 . End the Input Process of the Second Strengthening Stitch Distance Change



* After verify the new pattern, press 

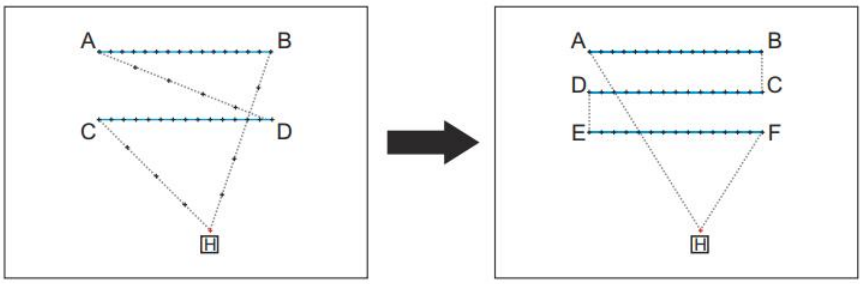
to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

(13) Multiple Stitches

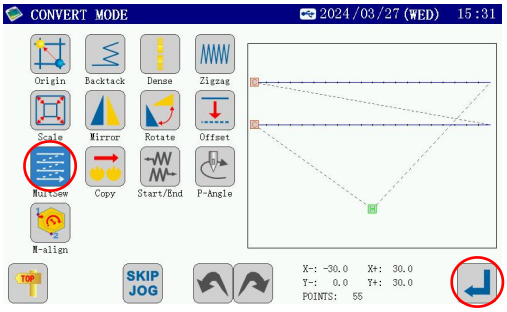
Note: B format only supports adding multiple seams ,does not support the function of modifying multiple seam parameters.

【Example】 As shown in the following diagrams, the Two-time Same-direction Multiple Stitches (with FEED Data) in the left side diagram is to be changed to the Three-time Opposite Multiple Stitches with FEED Data in the right side diagram.。



Operation Instruction

1. Select the Multiple Stitches Function Mode.

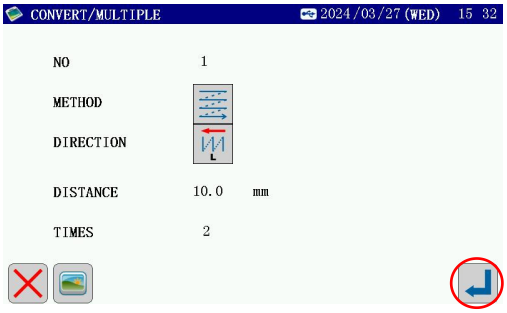


* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Multiple Stitch.

* Press  to confirm.

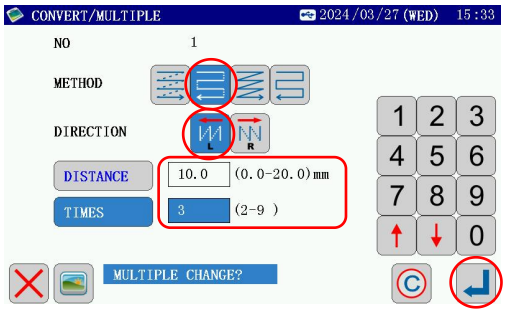
2 . Select the Code of the Multiple Stitches to be Changed / Verify



* When more than one group of Multiple Stitches are to be changed, Select the codes by pressing  and . (Only when more than one group of Multiple Stitches are to be selected, the buttons: And  will be displayed.)

*Press  to confirm.

3 . Set the Details of Multiple Stitches Change



* Select the type of Multiple Stitches.

： Same-direction Multiple Stitches With FEED Data

： Opposite Multiple Stitches with FEED Data

： Same-direction Continuous Multiple Stitches

： Opposite Continuous Multiple Stitches

* Select the direction of Multiple Stitches

： The Creation of Multiple Stitches at the Left Side of the Forward Motion

： The Creation of Multiple Stitches at the Right Side of the Forward Motion

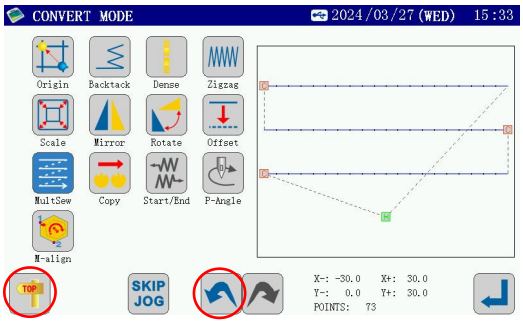
*Set the Distance of Multiple Stitches
(In this case, [10mm] shall be set as the Distance of Multiple Stitches.)
* Set the Times of Multiple Stitches (In this case, [3 Times] shall be set.)

*Press to confirm.

5 . Verify the Pattern after the Data Change Input

* After verify the new pattern, press to end Data Input Process and exit from Data Change Mode Group.

(Press to cancel the last input and Return to the original state.）



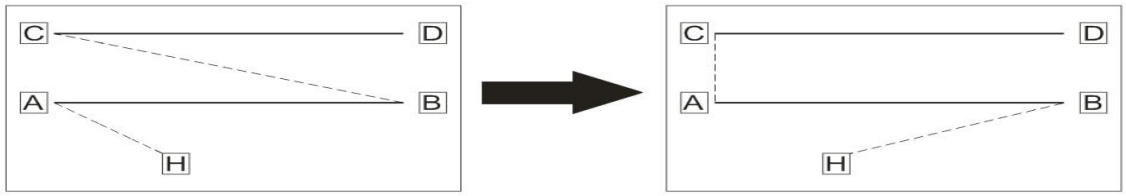
Note:

For the B format pattern data, the distance and number of the original multiples cannot be modified, and only new multiple data can be generated in the selected needle segment.

(14) Swap Start And End

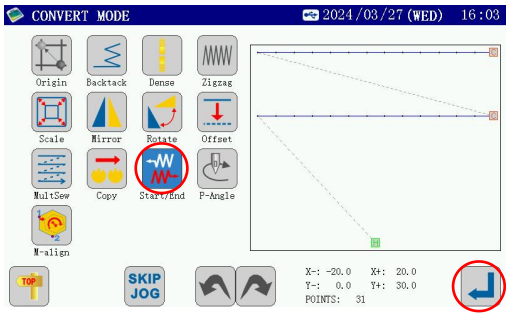
Note: Only B-format data is supported.

[Example] As shown in the figure below, Swap the AB forging interval start and end,Generate pattern data as shown in the right image.



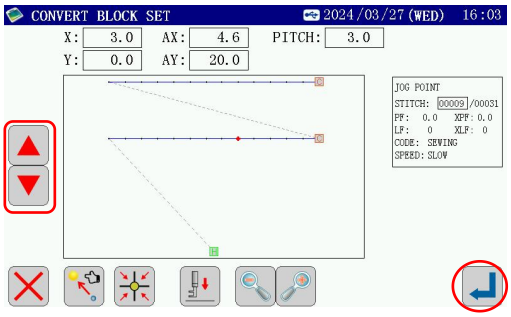
Operation Instruction

1. Select the Swap Start/End Function Mode.



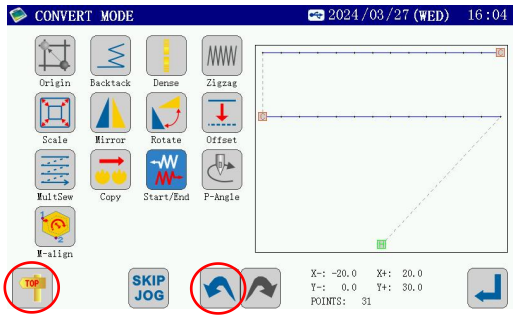
* Enter into Change Mode Group Interface.
  (Refer to Data Change Mode Group / Access to Data Change Mode Group).
* Press  for Swap Start/End Function.
* Press  to confirm.

2 . Confirm the Section for Swap Start and End



* Shift any point of the section from Point A to B to be beneath the needle by JOG ON buttons.
  (Section to be changed from beginning to end)
* Press  to confirm.

3 . Verify the Pattern Data after the Data Change Input.



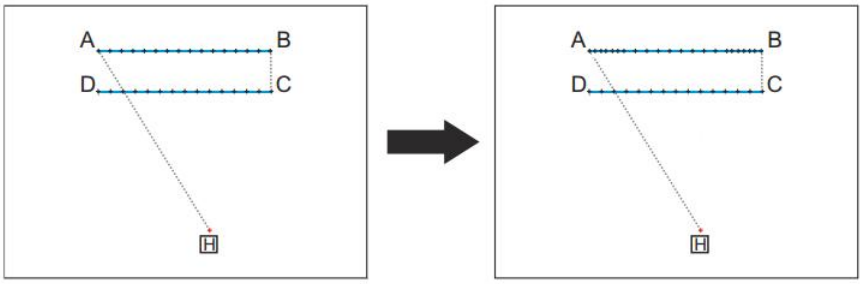
* After verify the new pattern, press 

to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.)

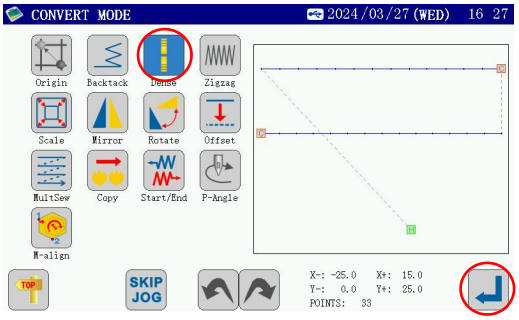
(15) Shrinkage seam conversion

[Example] Pattern data as shown in the following figure， To convert the front and back sections of section AB in the left image into contraction sewing data in the right image.



Operation Instruction

1. Select the Shrinkage seam Function Mode.

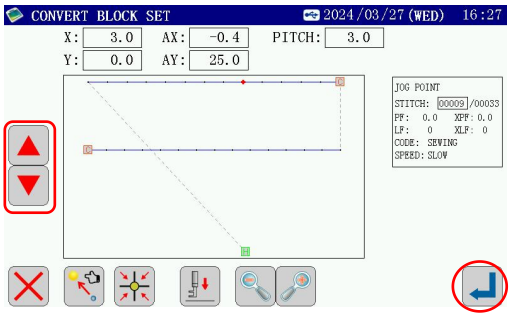


* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Shrinkage seam Function

* Press  to confirm.

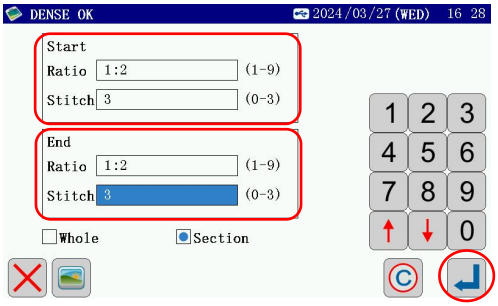
2 . Confirm the Section for Shrinkage seam



* Shift any point of the section from Point A to B to be beneath the needle by JOG ON buttons. (The section to be converted for shrinkage seam).

* Press  to confirm.

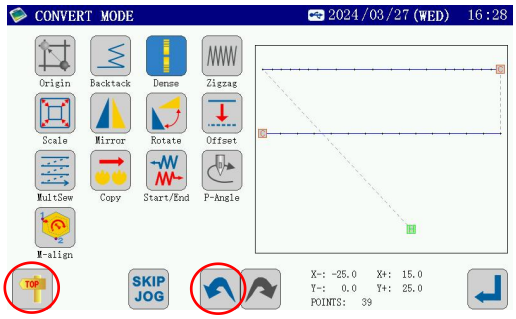
3 . Set the method of conversion



* Starting segment parameters
  Shrinkage ratio ： Set 1:2 here
  Shrinking stitches ： Set 3 here
* End segment parameters
  Shrinkage ratio ： Set 1:2 here
  Shrinking stitches ： Set 3 here
* Mode selection
  A:whole,Perform shrinkage seam conversion on the continuous sewing section of the entire pattern
  B:selection,Only select segments for shrinkage seam conversion
  (Choose B here)

* Press  to confirm.

4 . Verify the Pattern Data after the Data Change Input.

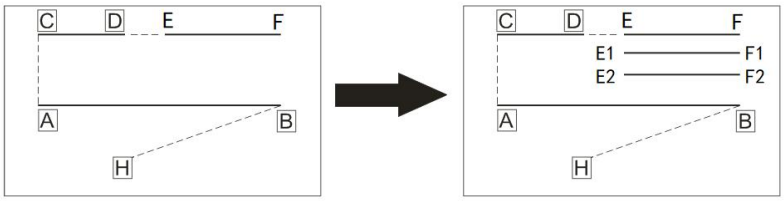


* After verify the new pattern, press  to end Data Input Process and exit from Data Change Mode Group.

(Press  to cancel the last input and Return to the original state.）

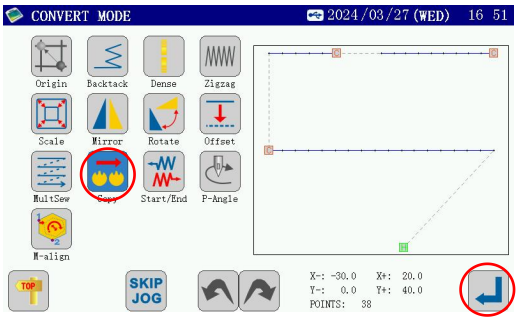
(16) Copy

[Example] The pattern data shown in the following figure, Copy the EF segment in the left image twice and add new E1F1 and E2F2 segments, As shown in the figure on the right.



Operation Instruction

1. Select the Copy Function Mode.

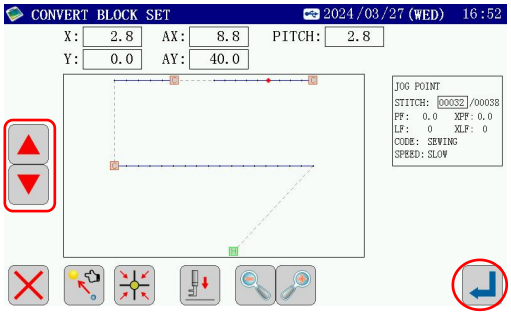


* Enter into Change Mode Group Interface. (Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Copy Function

* Press  to confirm.

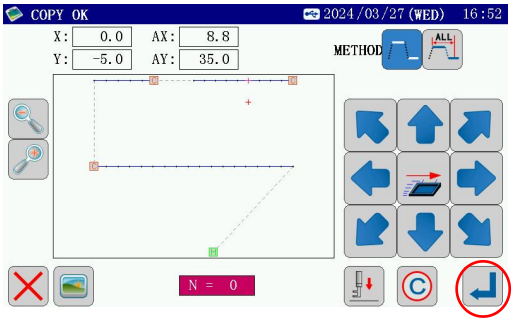
2 . Confirm the Section for Copy



* Shift any point of the section from Point E to F to be beneath the needle by JOG ON buttons. (Section to be copied).

* Press  to confirm.

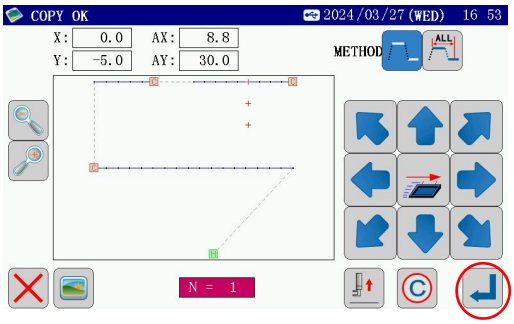
3 . Copy the first segment E1F1



*Use the move key to move the needle point to the copy target position

* Press  .The value N of copying number segments will increase 1,XY movement cleared to 0.

4 . Copy the second segment E2F2



*Use the move key to move the needle point to the copy target position

* Press  .The value N of copying number segments will increase 1,XY movement cleared to 0.

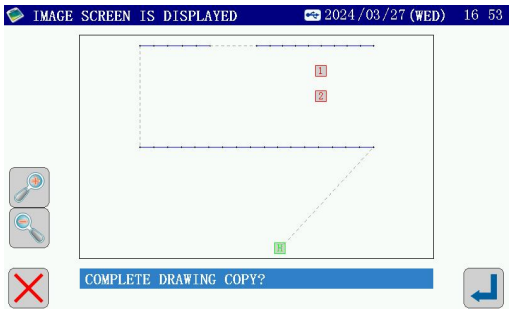
* When XY is 0, press  execute copy. Enter the "Execute Copy?" screen.

 Copy only selected sections



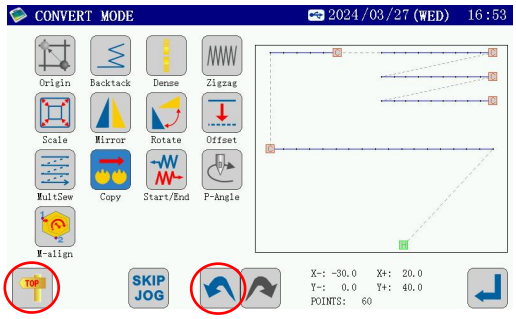
Copy the entire pattern

5. Perform pattern copying?



* Press to confirm.

6 . Verify the Pattern Data after the Data Change Input.

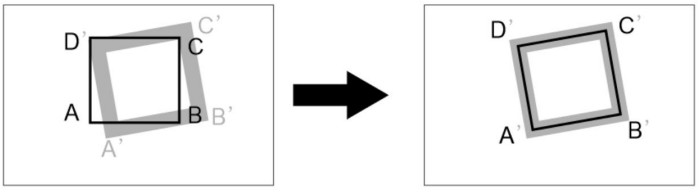


* After verify the new pattern, press to end Data Input Process and exit from Data Change Mode Group.

(Press to cancel the last input and Return to the original state.)

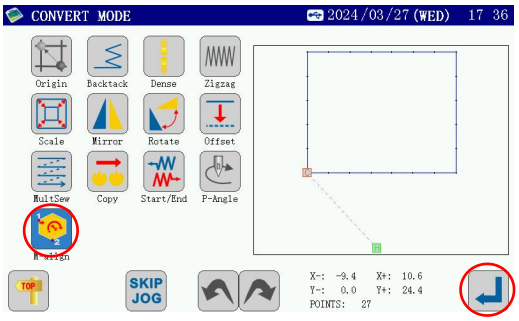
(17) Model correction

[Example] Pattern data as shown in the following figure. When there is a deviation between the pattern and the actual template position, As shown in the left image. It is necessary to correct the pattern according to the template, so that it coincides with the template,As shown in the figure on the right.



Operation Instruction

1. Select the Model correction Function Mode.

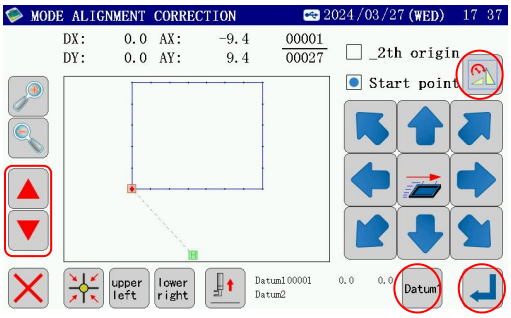


* Enter into Change Mode Group Interface.
(Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  for Model correction Function

* Press  to confirm.

2 . Selection of Model Parameters



2.1 Starting position modification mode(For step one， Benchmark 1 correction)
Modify 2nd origin: 2nd origin move,start point fixed
Modify start point: 2nd origin fixed, start point move
(Select here “2nd origin fixed, start point move”)

2.2 Correction mode，Press  Switch Select

 Pan adjustment：Move starting position. For pattern angles and sizes that overlap with the template，Only the starting position needs to be corrected.

 Rotation adjustment：Step 1- Correct the starting position；Step 2- Rotate the pattern. For The pattern

size is consistent with the template，Angle deviation。

 Rotate Zoom Adjustment：Step 1- Correct the starting position；Step 2- Rotate and scale the pattern. For Pattern size or angle deviation from template.

(Select  here)

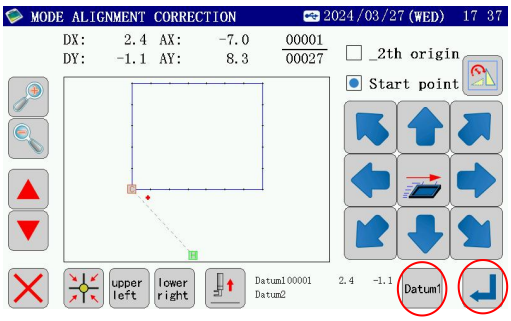
3 . Selection of benchmark 1

Set point A as benchmark 1 here， Use the move key to move the point position to point A.

Press upper left explore the upper left position of the pattern，And move the needle to the upper left position.

Press lower right explore the lower right position of the pattern,And move the needle to the bottom right position.

4 . Correction of benchmark 1



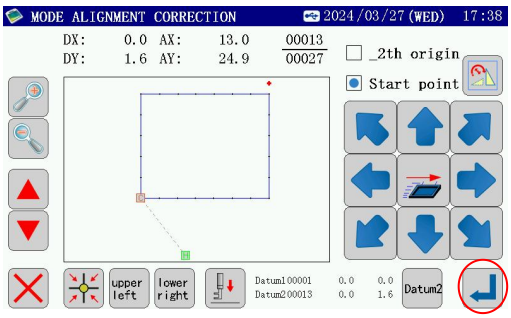
* Use the movement key to move the needle point to the target point A 'position.

Press  or Datum1, Complete the correction of benchmark 1. Convert to benchmark 2 correction，Datum1 become Datum2.

5 . Selection of benchmark 2

Set point C as benchmark 2 here， Use the move key to move the point position to point C.

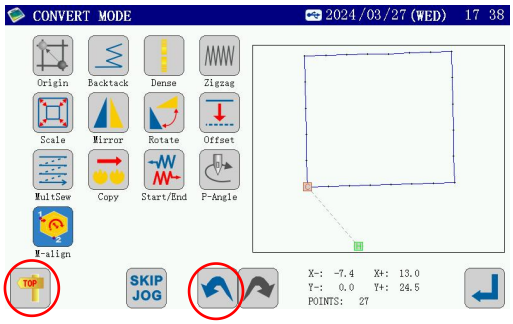
6 . Correction of benchmark 2



* Use the movement key to move the needle point to the target point C 'position.

Press  Execute benchmark 2 correction，Complete mold calibration.

7 . Verify the Pattern Data after the Data Change Input.



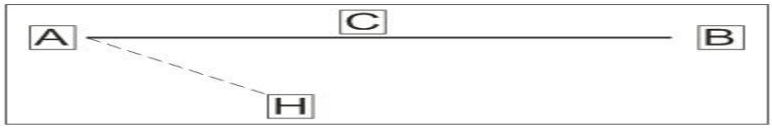
* After verify the new pattern, press 

to end Data Input Process and exit from Data Change Mode Group.

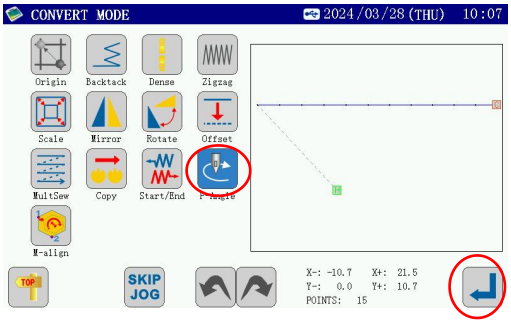
(Press  to cancel the last input and Return to the original state.)

(18) Needle angle change

Note: Only certain machine models are supported.。
[Example] As shown in the pattern data below, change the angle of the C-point needle to 80.



Operation Instruction
1. Select the Function Mode Needle angle change.

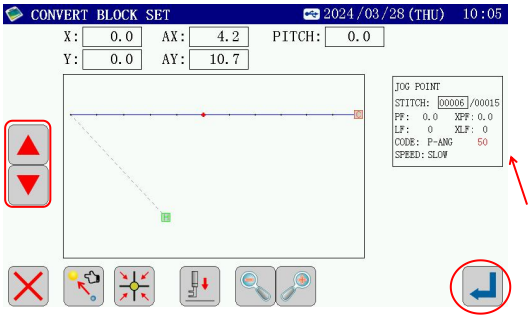


* Enter into Change Mode Group Interface.
(Refer to Data Change Mode Group / Access to Data Change Mode Group).

* Press  Needle angle change.

* Press  to confirm.

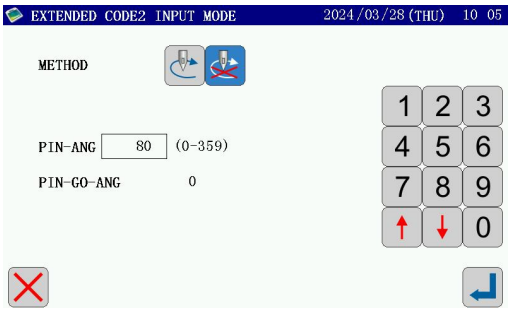
2 . Confirm the Position for Needle angle change.



* Press the JOG ON buttons:  to shift Point C to be beneath the needle

* Press  to confirm.

2 . Modify needle angle value



* Mode selection

: Restore automatic tracking mode

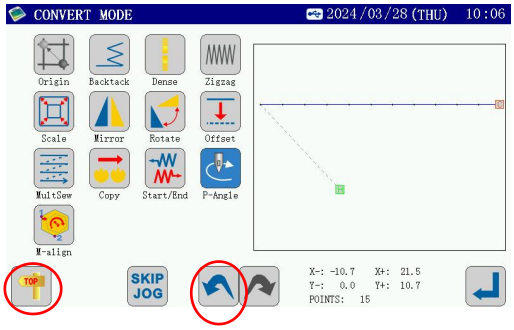
: Cancel automatic tracking mode

Press ,select to cancel automatic tracking mode.

* Input needle angle value is 80.

* Press to confirm.

3 . Verify the Pattern Data after the Data Change Input



* After verify the new pattern, press to end Data Input Process and exit from Data Change Mode Group.

(Press to cancel the last input and Return to the original state.)

9、Function Mode Group

(1) General Outline

* List of Functions



Copy Pattern Data



Format Disk



Verify the Version


Reading Settings file


User login


Operational record



one click recovery



Servo parameter setting


Machine settings


Pattern shortcut keys


Function shortcut keys


Set Needle-down-angle



Group Pattern Data


Adjust Screen Parameters


writing Settings file


Fault information record


Networked working group


Parameter correction (administrator)



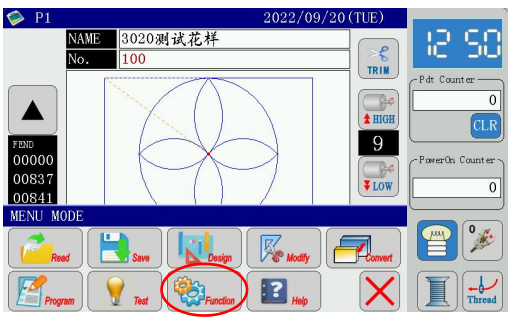
Stepper parameter setting



File management


Authorization Management

* Access to Function Mode Group



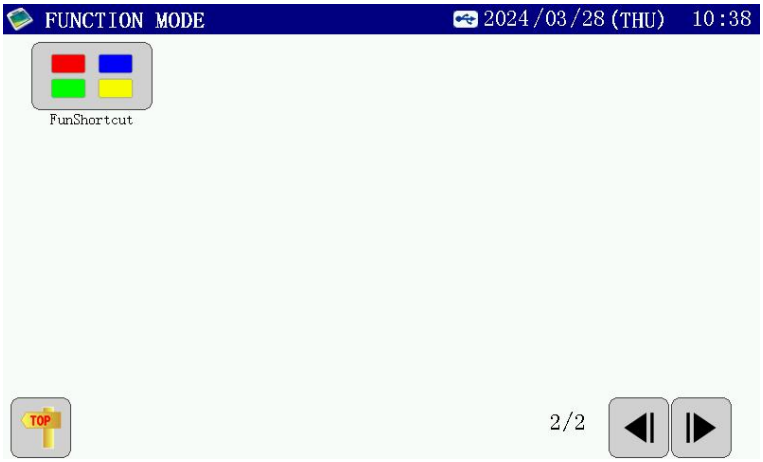
* Press 

under Standard Interface and then Press 

(Function Mode Group) to enter into the Function Mode Group.

* Function module screen





(2) Copy pattern data



Function Mode Programmed to Copy Patterns.

Pattern Data can be copied [from internal memory to floppy disk] or [from floppy disk to internal memory disk]

Note: During the process of duplication, if a pattern code in the Internal Memory or Floppy disk is the same as that of the pattern being copied, the data of the former one will be overwritten by that of the latter one.

When the Readout / Write Into Function Mode is selected, be sure to choose the right copy direction.(This can be verified by the sign displayed at the upper left corner).



* Press the codes of the patterns to be copied (maximum 10 patterns can be copied) and then press  to execute the duplication.

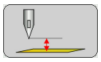
(If  is pressed, all of the data will be copied.)

Select the source of the copied pattern

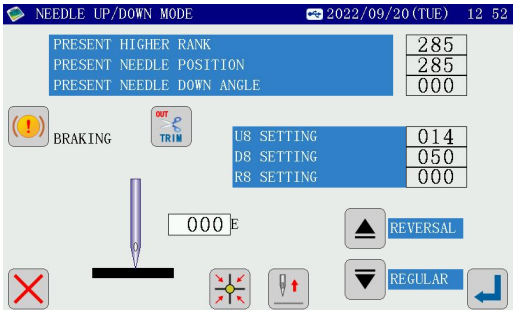
Note: .Maximum 999 patterns can be written into internal memory disk.

However, under some situations, not all of the data can be copied, in this case, the error message shall be checked.

(3) Set the Tip Angle of a Needle when it drops to the lower position



Press Needle Up/Down Button to set the Tip Angle of a needle when it stops at the upper / lower position



U8 Setting: The Tip Angle of a needle when it stops at the upper position.
D8 Setting: The Tip Angle of a needle when it stops at the lower position.
R8 Setting: The negative rotation angle of a needle.
Please refer to List of Program Mode Groups [Needle Position] for setting the details.

pay attention when press   and , the needle will rotate upward or downward.

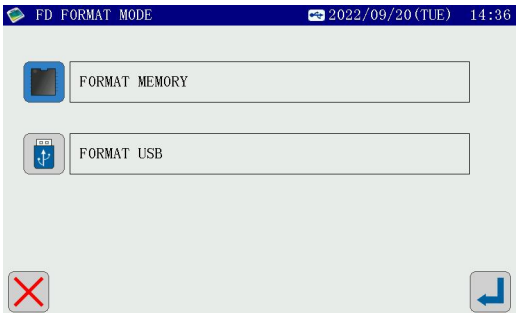
(4) Format Disks



The Function Mode is programmed to format a floppy disk, internal memory disk, external USB drive.

When a floppy disk, internal memory disk, USB is being formatted, all information contained in the disk will be deleted.

When an internal memory disk is being formatted, all of the stored pattern data will be deleted.



* Format disk selection

 ： USB Interface

 ： Internal Memory Disk

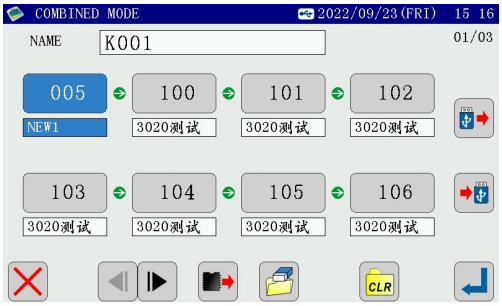
* Press  to confirm.

(5) Programming Group Patterns



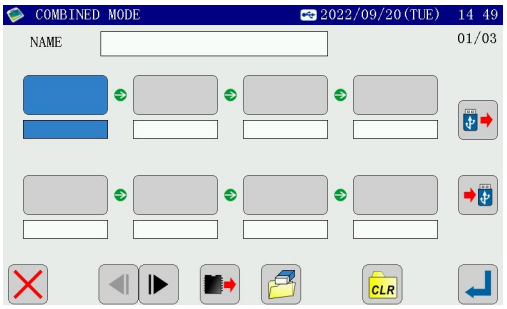
* Operation Instruction for Grouping Pattern Data

1、The Interface of Group Function Mode



* When the Group Function Mode Interface is displayed,the recently-selected Group Data will be displayed. A newly-created Pattern Group can be cleared by pressing . The displayed combination of pattern codes can be re-grouped.

2、The Interface Displayed after the Newly-created Group is cleared.



* When a new Pattern Code is to be added, select the position where the Pattern Code is to be added and then press .

3、 Select the Pattern Code to be added.



* Select the pattern code to be added to the Group.
Press  to confirm.

4、Add Pattern Code

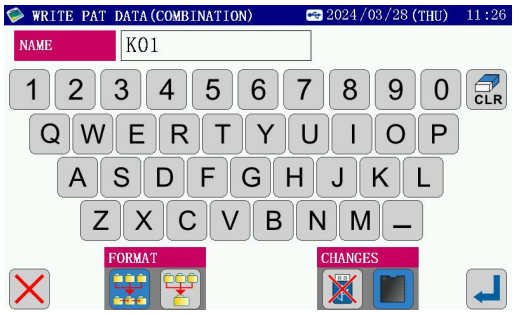


* As shown in the diagram, the Pattern Code of Number 600 has been added in the specified position.

* Maximum 20 Pattern Codes can be added following the Step 2 and 3.
(To delete the added Pattern Code, select the Pattern Code and then press .)

* Press  to write the grouped pattern data into a disk.

5、Write the Grouped Pattern Data Into a Disk.



* Same as normally write a pattern number, Select the target disk first.
(For internal memory, USB or SD card , select the “Internal Memory” button.)

* input the name of the Pattern
* Select Save mode.

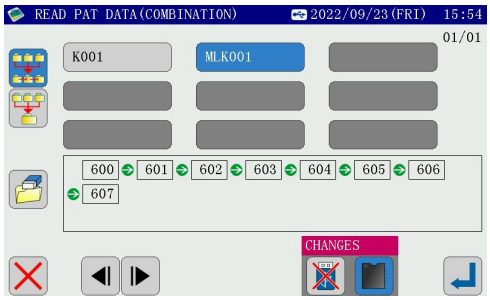
: Combination patterns

: Connector

（Select Combination patterns here）

* Press to confirm.

6、New data coverage

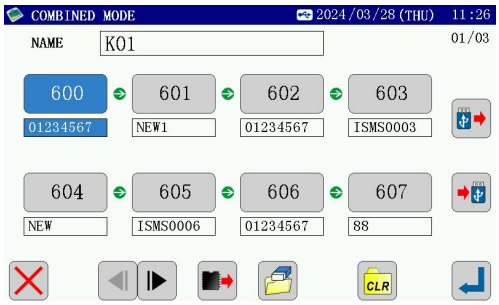


* Maximum 20 groups of Pattern Data can be written into an Internal Memory Disk. If all of the 20 positions are occupied by grouped patterns,one of them has to be overwritten by the new group of Pattern Data.

* Select the Position to be overwritten by The new group of data.

* Press to confirm.

7、End the Input of Pattern Group

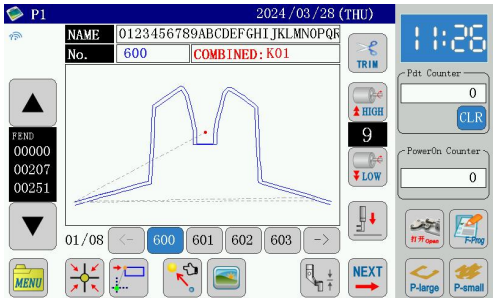


* The Input of Pattern Group has been completed.

* Press  to return to Standard Interface.

* The Inputs of Pattern Groups will be executed according to the coded sequence.

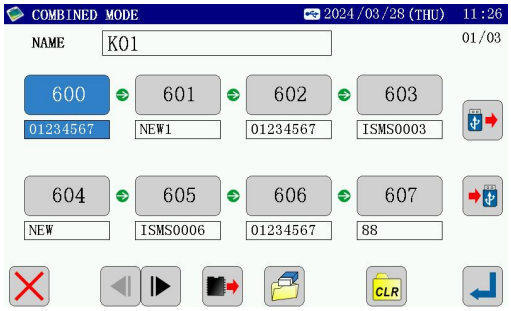
8、 Verify again under the standard screen



* Patterns can only be switched between grouped pattern numbers when press  and .
Note To return to the sewing status, please enter the grouping screen,Press , then press  to confirm.

* Readout / Delete Pattern Group Data

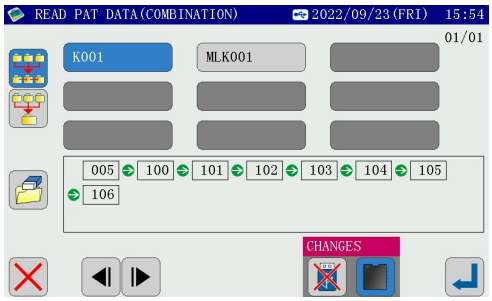
1 、Display the Interface of Grouped Pattern



* Press programmed to read out data Under the interface of grouped pattern.

Note: If the current group is occupied, press CLR to clear the current group before grouped patterns.

2、Display the Interface of Selected Pattern Group



* Select the Grouped Pattern to be readout.
* Same as normally write a pattern number, Select the target disk first. (For internal memory, USB, select the “Internal Memory” button.)
* input the name of the Pattern
* Select Save mode.

: Combination patterns

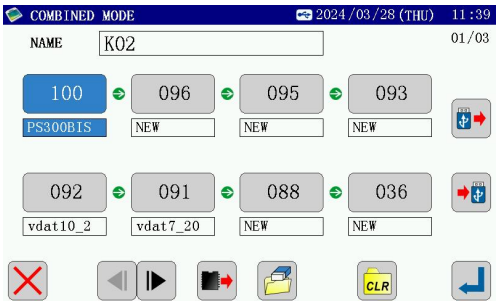
: Connector

(Select Combination patterns here)

* Press Delete the selected grouping pattern data.

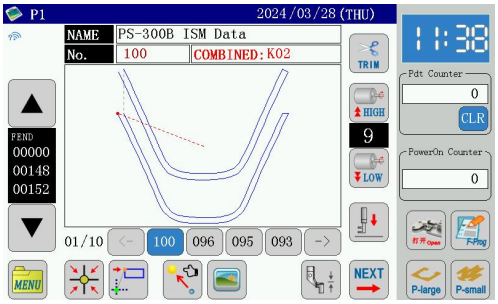
* Press to confirm.

3、End the Readout Process



* Press  to return to Standard Interface.
* The Inputs of Pattern Groups will be executed according to the coded sequence.

4、Verify again under the standard screen

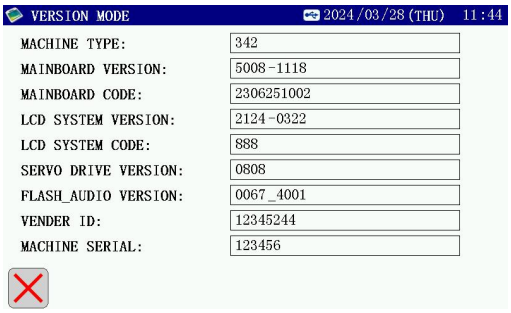


* Patterns can only be switched between grouped pattern numbers when press  and .
Note To return to the sewing status, please enter the grouping screen,Press , then press  to confirm.

(6) Verify Versions



The Function Mode is programmed to verify the versions of all programs being used in the system.

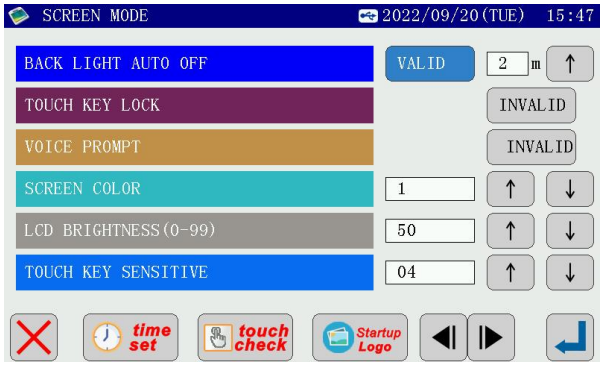


(As shown in the left diagram, the versions of all programs are displayed.)

(7) Adjust screen interfaces.



Adjust various screen-related settings.



Screen Power-saving Setting
When the setting Time comes, the light of the screen will automatically turn off.
Range of setting: 1 to 9 minutes. Factory Default Value: [Enabled], 5 minutes.
Method for disabling the function: During the power saving period, press any part of the panel, the light will turn on.
(Before the Screen Power-saving Function is [Disabled], the Automatic-turn-off-light function remains [Enabled].

Press Button Safety Lock
When the Safety Lock is [Enabled], the system is able to avoid any wrong operation as all Press Buttons are disabled.
Method for disabling the function: Press any part of the panel for above 3 seconds, the function will be disabled when a sound is given out.
(After the function is disabled, the Press Button Safety Lock will be set as [Disabled].)
Factory Default Setting: [Disabled].

Explanation on Press Buttons:
When a Press Button is pressed, the title block will display the detailed explanations on the button. This function can be set as [Enabled] (will display)/ Disabled (will not display).
Factory Default Setting: [Enabled].

Sound-adjustment for Press Buttons
This Function Mode is programmed to adjust the speed of sound. The bigger the value, the lower the speed will be. On the contrary, the smaller the value, the higher the speed will be. Range for adjustment: 0-10.
Factory Default Value: [0].

Background Code
This Function Mode is programmed to set the Background Pattern.
Range for adjustment: 1 to 4.
Factory Default Value: [1]。

Interface Brightness Contrast
This Function Mode is programmed to adjust the Brightness Contrast of an interface.
Range for adjustment: 0 to 99. (The bigger the value, the lighter the interface will be)

Key sensitivity
Adjustable touch screen touch effect. Adjustment range: 1 ~ 9 . (The larger the value, the more the touch force)

Indicator light
Adjust the brightness of the LED lights. Adjustment range: 0~99 .(The larger the value, the more the touch force)
0：Turn Off；
1-9：LED always on，Divided into 1-9 levels, adjust brightness.
10-99：LED breathing light mode

Alarm sound
Adjust the size of the buzzer sound when an alarm is triggered. Adjustment range: 0~10.(The higher the value, the louder the sound)

Voice Volume
Adjust the volume of voice prompts. Adjustment range: 0~63.(The higher the value, the louder the sound)



Press to entry the time modify screen.



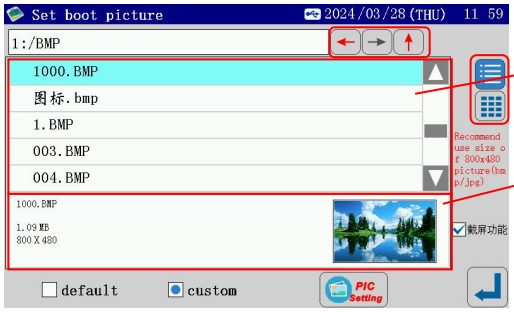
Press to enter the touch screen calibration screen.

After pressing 5 calibration points, press "Back" to not use the current calibration value; Press "DEF" to use factory default values; Press "SAVE" to use the current calibration value, while saving the calibration value for next use.

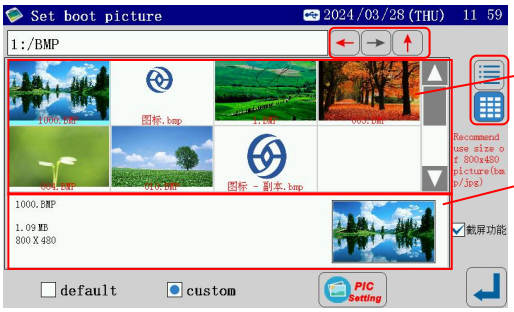


Press enter the startup settings screen.

(7.1) Startup screen settings



(List Mode)



(Icon Mode)

1Display mode selection:


List Mode， Press .


Icon Mode，Press .

2 File selection：

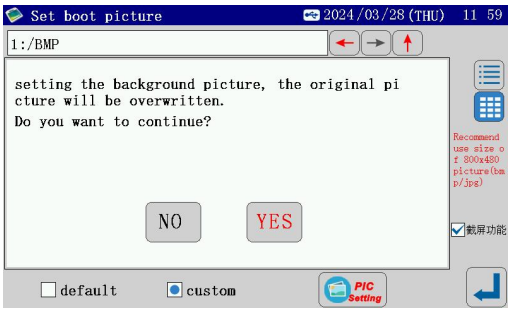
Click on the file in the file list, and the information box will display the selected file information.

When selecting files as folder properties , click on this folder again，and then enter folder. The file list displays the files within the folder.

Press Return to the upgraded file or re-enter the folder where you last exited.

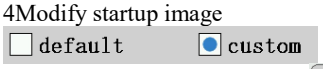
3 Import startup image：

After selecting the startup image，Press ，Pop up confirmation window。



Press  Start importing images.

4Modify startup image



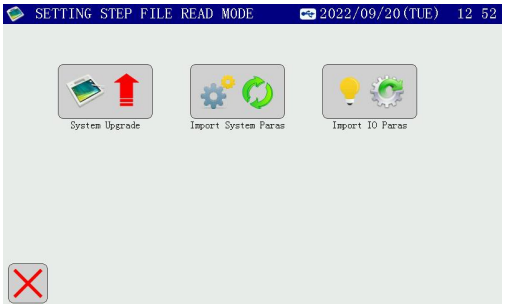
Select “custom” image，Press ，The startup screen has been changed to the image just imported. Restarting the machine takes effect.

If you choose the “default” image, the system default startup image will be used.
If you need to replace the startup image, then re import the startup image and select “Custom” Image.

(8) Readout the archive of settings/System upgrade



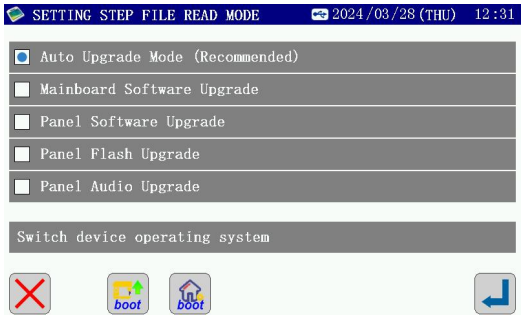
Readout the Set Data and Procedures stored (backup) in a floppy disk.



Support system upgrade, system parameter restoration, IO setting parameter restoration.

Note: During the readout process, the Original Set Data will be cleared and overwritten by the New Data.

System upgrade screen



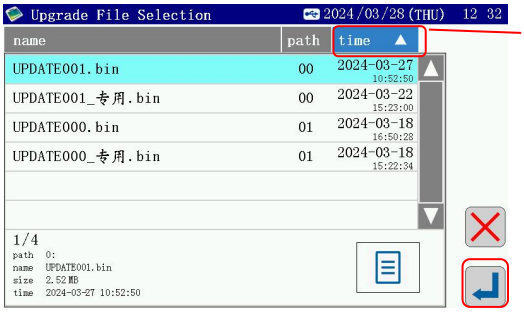
*System upgrade

Select upgrade device type，Press .

*System switching

Press Switch device operating system,
Enter the system selection screen.

If there are multiple upgrade files in the root directory or the ":/ZK/UPDATE" folder of the USB drive，Enter the file selection screen.



Press the list file will sort in chronological order

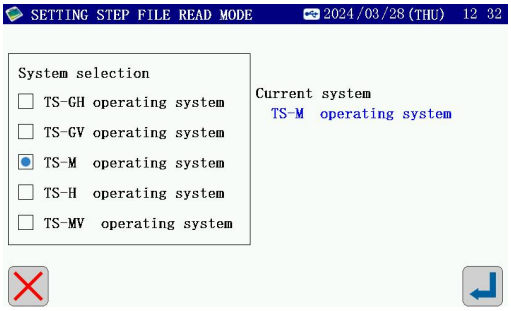
* path

00：Root directory file

01：Files in folder :/ZK/UPDATE”

* Press Start upgrading the system using the selected upgrade file.

System switching screen



Select target system， and then Press .

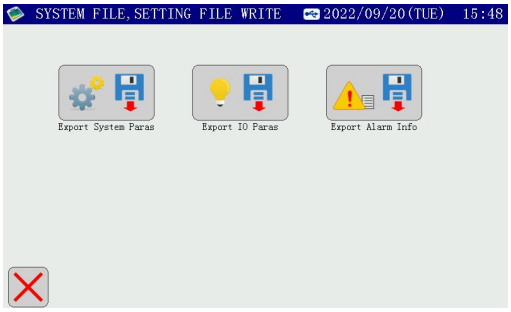
If the operating disk is connected to an USB drive, and there are upgrade files inside the USB drive, the upgrade files inside the USB drive will be used for system switching .

Otherwise, use the files in the operating disk for system switching.

(9) Write the system archives of settings.



Write (backup) system programs, archives of settings and steps into a floppy disk.

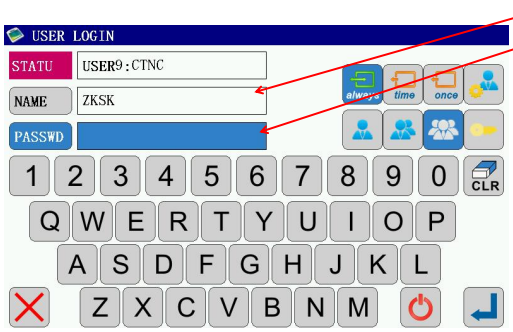


* Please use formatted floppy disks.
* During the Write-into Process, note all of the Original Data will be cleared and overwritten by New Data.

(10) User login function



Switch the login user and modify the user information.



Switch to enter user name status

Switch to enter password status

* Login mode selection



：User does not automatically quit after logging in.



：User logs out automatically after 30 minutes delay



：Use the user to log out automatically after logging in.

* Login level selection



：Operator user level (users 1 ~ 5)



：Operator user level (users 6 ~ 7)

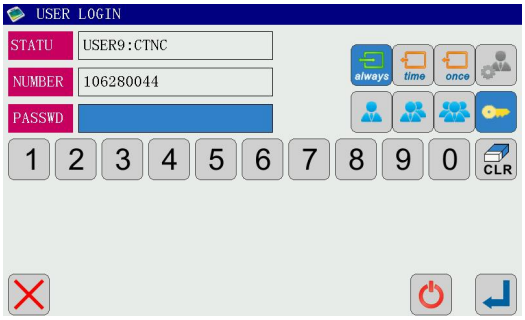


：Equipment manufacturer user level (users 8 ~ 9)

* press  to confirm.

* Press  Exit the currently logged in user

Press  to switch to the query device authorization message screen



* After entering the correct authorization password, press  to confirm.

The device's authorization information will displayed.

Press  Switch to the screen for modifying user information

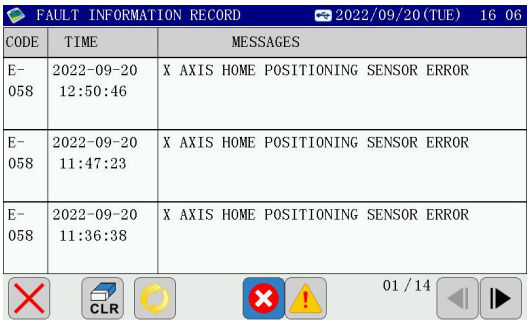


* Select the users that need to be modified, Press .

*Return to the password input screen, input the modification information, and then press  to complete the information modification.

(11) Machine fault records





* Select view type

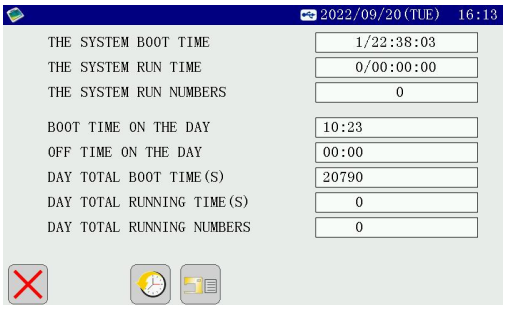
 ： Display fault information

 ： Display fault information

* Press  to refresh display.

(12) Machine operation records

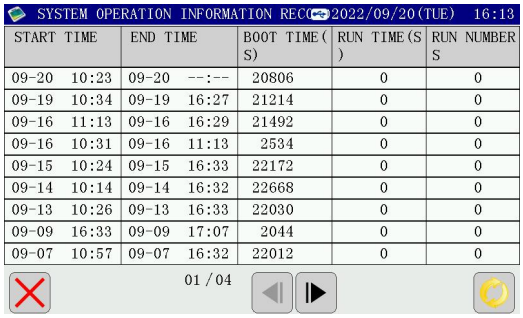




* Press  Display power on/off information.

* Press  Display running record information.

Power on/off recording information screen



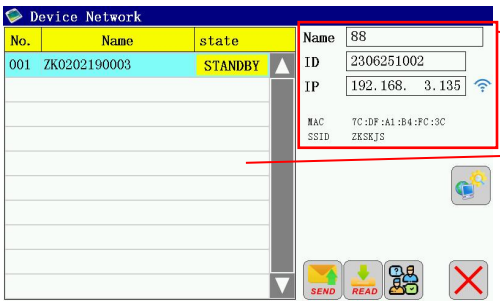
Detailed operation record information screen



(13) Network working group



Read remote machine pattern data and send local pattern data to remote machine devices.



* Display local information

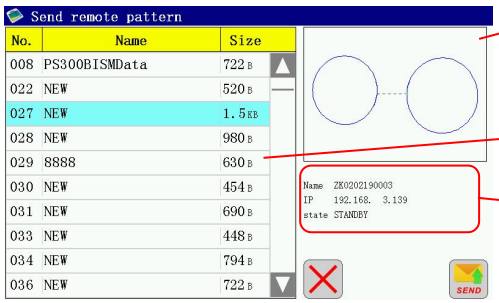
* After the machine successfully connects to the network, it will display the other connected devices. Click the machine name to select the remote device that needs to be operated on.

The highlighted background is the currently selected remote device.

1. Send local patterns to remote devices

After selecting a remote device，Press 

，Enter the local pattern sending screen.



Selected pattern

Local pattern list.
Click the file number/name to select the file.
Highlight the background as the selected file

Remote device information

* Select the pattern to be send，Press 

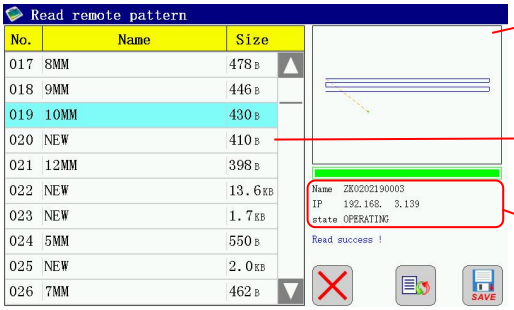
Send file to remote device.

* Press  Return to the previous screen.

2.Read remote pattern data.

After selecting a remote device，Press 

，Enter the remote pattern reading screen.



reading the pattern of remote device

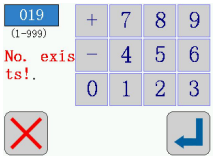
Remote device pattern list.
Click the file number/name to read the file.
Highlight the background as the selected file

Remote device information

* Press  Refresh the remote device pattern list.

* Press 

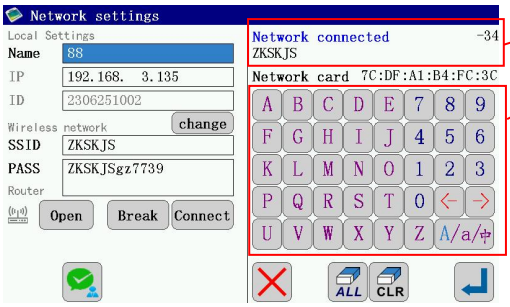
Save file. If the file number does not have a corresponding pattern on the local machine, save the pattern directly to this number. Otherwise, a save number screen will pop up.



Input save number，Press .
Save the pattern to the input number.

3.Modify machine name and wireless network

Press  Enter the modify machine name and network screen.



Display machine networking status
Connected network name

Enter the machine name， wireless network SSID，PASS
Click the input content editing box to select the input category

Press change，Loop changing SSID and PASS edit box content. Recently recorded 5 sets of network information.

Press Break，Disconnect network connection. If the machine does not need to connect to the network,

After Disconnect network ,press .

Press Connect，The machine is connected to the wireless network of the setting SSID and PASS.

Press Connect，Turn on router mode，The SSID and PASS of the network are the contents of the edit

box，Can support 5 machines to connect to this network. Press 关闭 Turn off routing mode.

Normal mode Router Open ； Routing mode Router Close 。

Press  Return to the previous level of the screen.

Press  Execute machine name modification，network connections，And return to the previous level of the screen.

4.Dialogue with remote upper computer

Press  Enter the temporary dialogue screen.



Recent conversation records
Red font for receiving information
Blue font for sending messages

Input the information to be sent

Delete the previous input content

Clear conversation records

Input method switching

Press  Return to the previous level of the screen.

Press  Send the input dialogue content.

(14) Functional backup and restore



* Press  to save all pattern data and set technical parameters to inter memory

* Press  to restore all data to before use state.

* Press  to restore all data to the factory state.

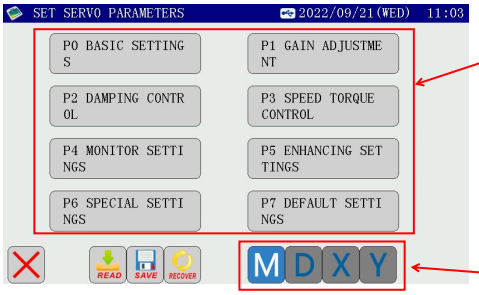
* when press  、 、 to do the above operation in the screen displayed，then press  to confirm.

(15) Parameter correction



(16) Servo parameter setting





* Set and modify parameter types

* Switch controlled axes，if not connection the button set disable。



: Read and update servo parameters

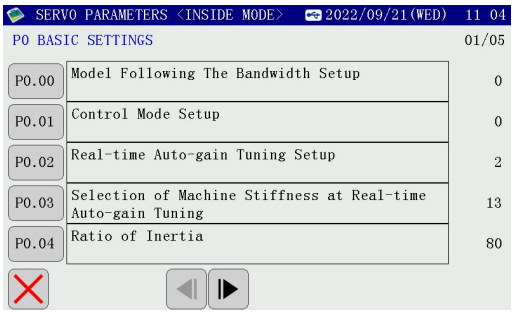


:Save servo parameter values



:Restore the servo parameters to factory settings.

Press Object type button，Enter the corresponding modification screen，
Press P0 BASIC SETTINGS



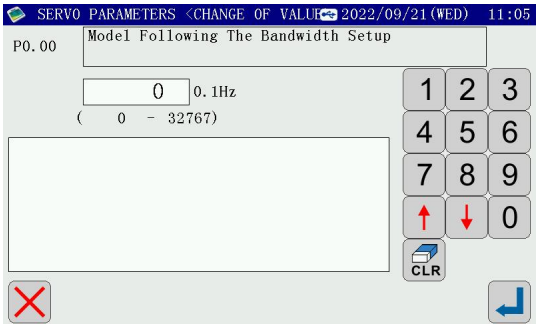
* The left button is the import button for modifying the corresponding port parameters.
* The middle is a description of port functions.
* The right side shows the port parameter values.

Press  Flipping pages.

* Press  Return to the previous screen.

Press P0.10 here, Set the parameter value, Enter the parameter modification screen.

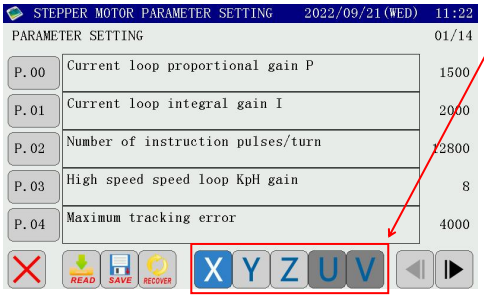
Parameter modification screen



Input values within the set range，Press Complete parameter modification.

After the parameter modification is completed, if you need to save the modification result, press  on the servo parameter main interface to save the modification result.

(17) Stepper motor parameter setting



* Switch controlled axes，if not connection the button set disable.

READ: Read and update stepper parameters

SAVE:Save stepper parameter values

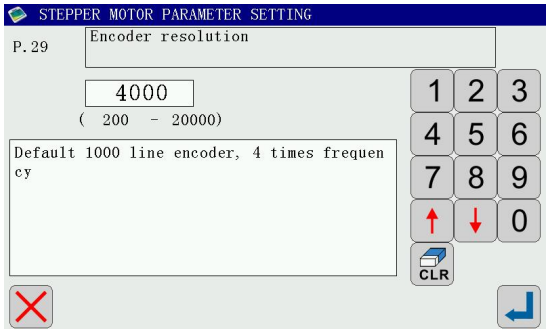
RECOVER:Restore stepper parameters to factory settings.

* The left button is the import button for modifying the corresponding port parameters.
* The middle is a description of port functions.
* The right side shows the port parameter values.

Press Flipping pages.

* Press Return to the previous screen.

Parameter modification screen



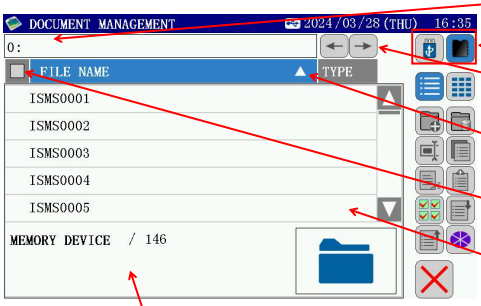
Note: The white text area contains a detailed description of this parameter.

After the parameter modification is completed, if you need to save the modification result, press SAVE on the stepper parameter main interface to save the modification result.

(18) file management



(1) List Mode



Indicates the current file path

Indicating/Switching Storage Devices Used

File path switching (only valid for USB)

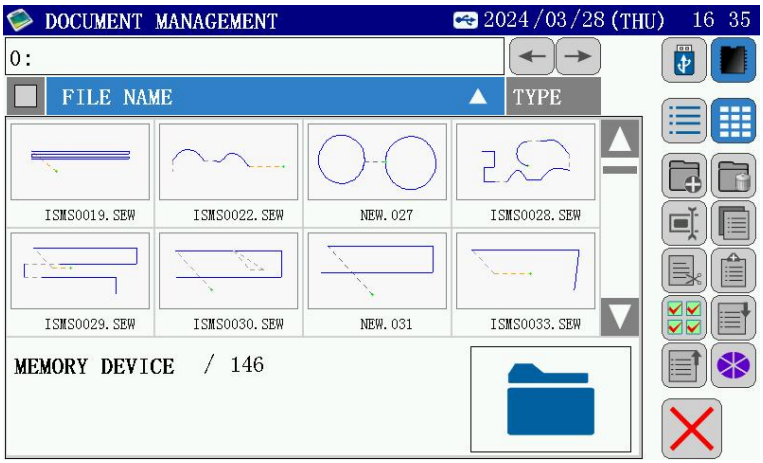
Switch button for sorting files in forward and reverse order

Select/Deselect All button

Display file/folder names，Click to select. Will display file/folder information，Or enter the folder directory

Display information about the currently selected file or folder

(2) Icon Mode



Operating instructions:

1. Storage device switching

Press the memory switch in the upper right corner

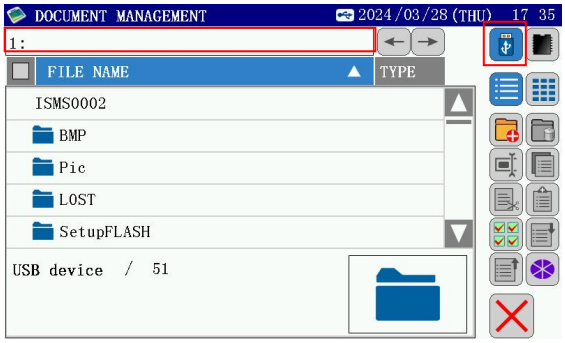
（Memory: USB：）



Select storage devices based on actual needs

If you choose to format, a format form will pop up.

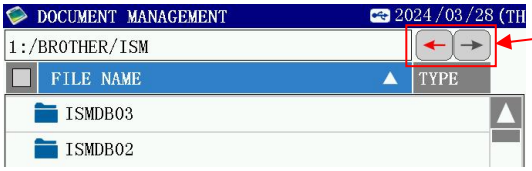
Select to switch to USB memory here, and after successful switching, the root directory of the USB will be displayed.



switched to USB storage device.

When unplugging a USB device, it will automatically switch to using the memory.

After entering the folder.



Display enable status

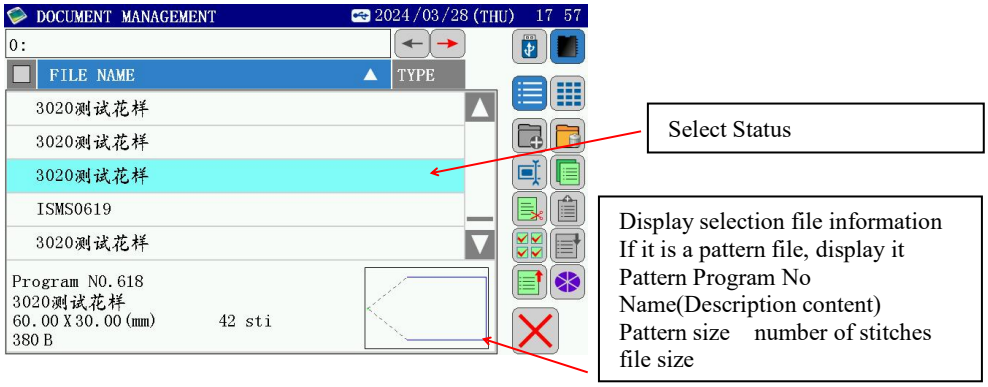
: Return to the previous operation path

: Enter the undo path from scratch

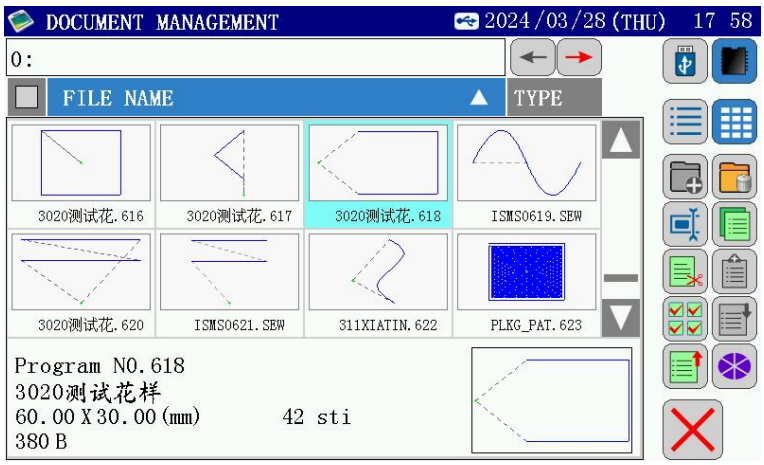
1. File selection.

Click on the file name to select the file, and the file information area will display detailed information about the selected file.

List Mode



Icon Mode



If the selected file is not a pattern file, there will be different instructions in the display information area.

Selected folder



Display the folder name and folder indicator icon.

Selected other files



Displaying file name and file size and Other file indicator icons

1. Key instructions.

: return to the previous page screen

: Press to select the list display mode

: Press to select icon display mode

: Single/check mode switching

: File/folder renaming

: New folder (valid only for external USB)

: File/folder deletion

: File/folder copying

: File/folder cutting

: File/folder pasting

: 外部存儲器導入文件到內存

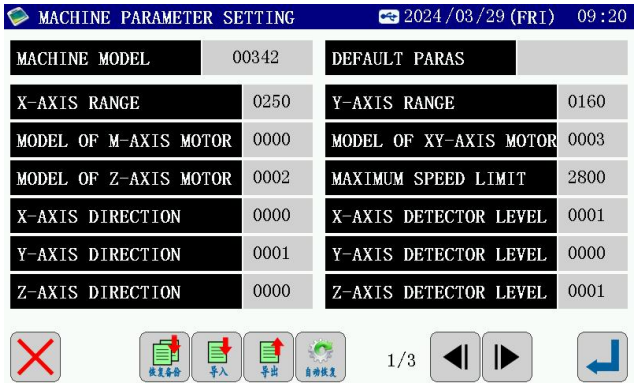
: Export memory files to external storage “/BROTHER/ISM/ISMDB00” directory

: files formatting

(19) Machine settings



Set machine parameters.



Press the parameter value that needs to be changed, Enter the parameter value modification setting interface.

Press , Restore parameters to the last modified value.

Press , Import parameter values from a USB drive.

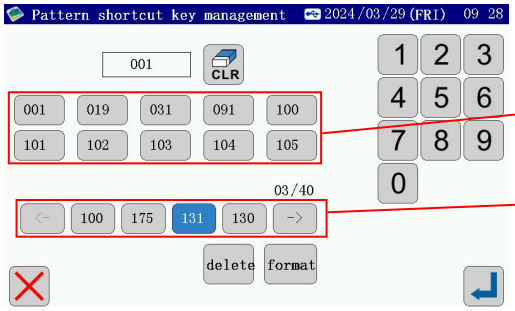
Press , Export parameter values to an external USB drive.

After completing parameter settings，Press  Effective changes.
The system needs to be restarted.

(20) Pattern shortcut key settings



Setting pattern shortcut keys， The pattern number corresponding to the P1 screen can be quickly read. <- 129 128 621 620 ->



According the input number,
Explore the pattern numbering of machine existence

The pattern number recorded by the shortcut key group.
Highlight the background as the selected number

The shortcut key group can save up to 40 sets of patterns.

1 Create a new pattern number
A Select Join Location：Select the insertion position in the shortcut key group(Highlight background)
B Select the new pattern number：Input the target number ， Press the number in exploration list
C After inserting the pattern number， The originally selected number and its subsequent patterns move backwards in sequence

2 Delete patterns within shortcut key groups
A Select the number to delete：Press the number in shortcut key group(Highlight background)
B Press delete ， Delete selected number
C After deleting the pattern number，the patterns after select move forward in sequence

3 Format pattern shortcut key
A Press format ， Delete all patterns within the shortcut key group

Press  Return to the previous screen，Do not save this modification.

Press  Return to the previous screen，Save this modification.

Note: After modifying the shortcut key group， If the pattern number generated by sewing, modifying, transforming, and punching does not have a shortcut key group，The pattern number will be automatically added to the start position of the shortcut group.

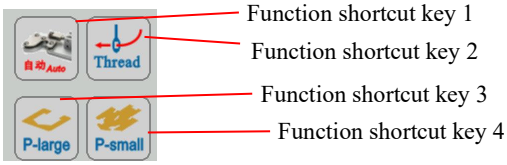
(21) Authorization Management

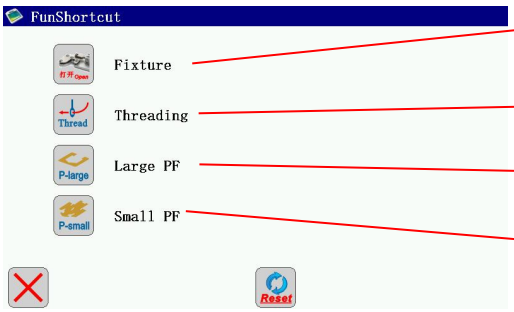


(22) Function shortcut key settings



Setting function shortcut keys.
Corresponding to P1 and P2 screens





Function shortcut key 1 content，Press the icon button enter the function key 1 editing screen

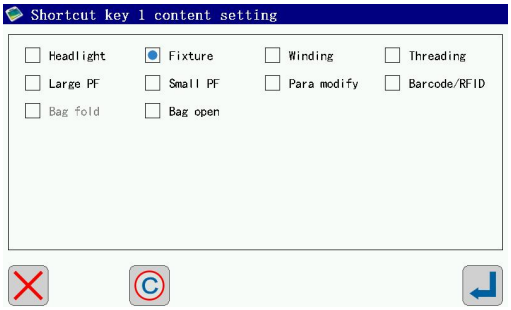
Function shortcut key 2 content，Press the icon button enter the function key 2 editing screen

Function shortcut key 3 content，Press the icon button enter the function key 3 editing screen

Function shortcut key 4 content，Press the icon button enter the function key 4 editing screen

Press  ， Restore the content of shortcut keys 1-4 to default values

Function shortcut key editing screen



* After selecting the setting content,Press 
Complete the setup
If the shortcut key does not require setting content，Press ， and then Press .

10、Setting input,output signal mode

(1)Outline

* Input and output signal setting mode list



Input signal verification (※Note! The sewing machine may actually operate.)



Verification of the output signal (※Note! The sewing machine may actually operate.)



Verification of the origin detector, encoder, and position detector (※ Note! The press foot will be lowered and the sewing machine may actually operate）



Custom input signal (input signal logic)

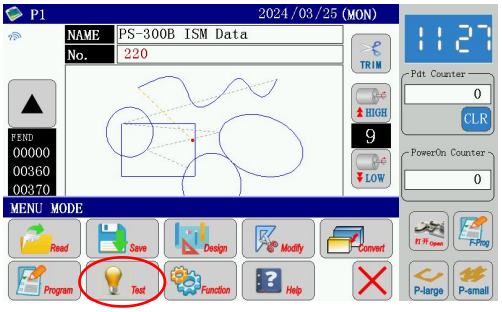


Custom output signal (output signal logic)



Analog input setting

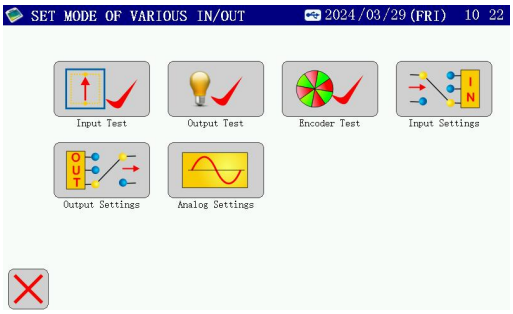
* Enter the method of setting input and output signal mode



* Press  in the standard screen.

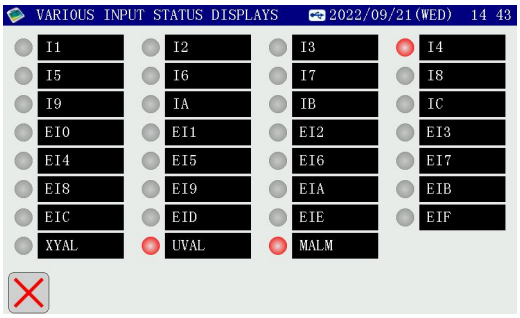
Then press  the screen for setting the input/output signal mode will be expanded.

* Setting the screen for input and output signal mode



(2)Input signal verification





* The status of check various input signals ON/OFF

: The input signal is ON.

: The input signal is OFF.

the sewing machine may actually operate

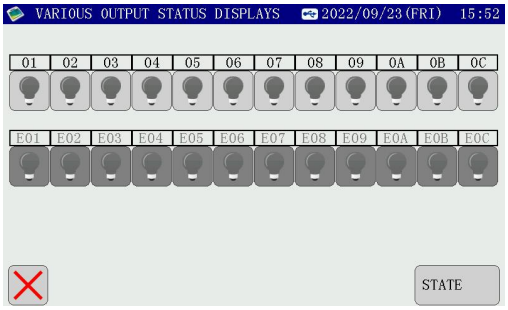
Note: When the error message is displayed preferentially, the ON/OFF screen of the input signal may be blocked.

(3)Verification of output signals.



verify all kinds of output signals。
[1] display reference status mode, and [2] manual output signal test mode.
Press the mode switch key screen to switch.

[1] Display reference status mode
* The status of check current output signal .



 ： The output signal is ON.

 ： The output signal is OFF

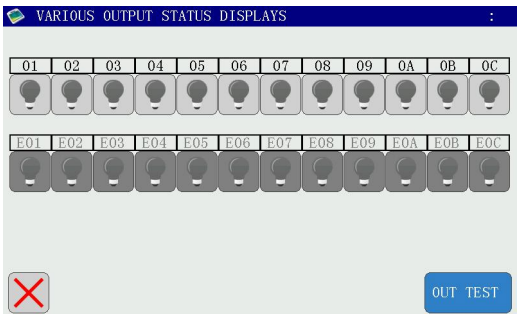
* Press [OUT TEST] switch to manual Output signal test mode.

[2] Manual output signal test mode.
Press the key where need test.

 ： The output signal is ON.

 ： The output signal is OFF

* Press [STATE] switch to reference Status signal test mode.





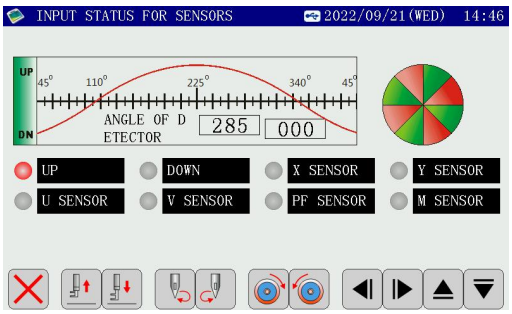
The sewing machine may actually operate. For safety, do not lean your hand on the sewing machine during the input signal verification.

Note: When the error message is displayed preferentially, the ON/OFF screen of the input signal may be blocked.

(4)Verification of the origin detector and encoder detector



The state of the origin detector and the encoder detector are clearly displayed.



* The detector angle is based on the following stop detection position.

* The colors of the encoders are reversed from each other.


: Detected


: Undetected



The sewing machine may actually operate

Note: In the case where the fault prompt is displayed preferentially, each display may be hidden. When entering this function, the magnetic field of the stepping motor will be released. Once the origin return/run signal is input, the magnetic field turns ON again.

(5)Custom input signal (input signal series)

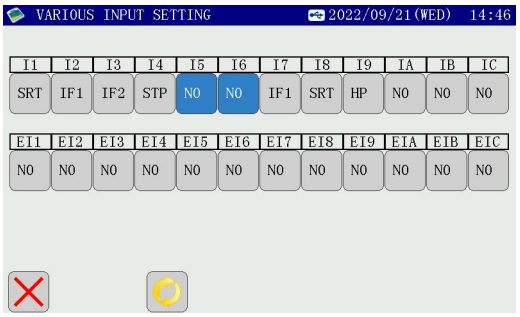


[1] Custom input signal screen

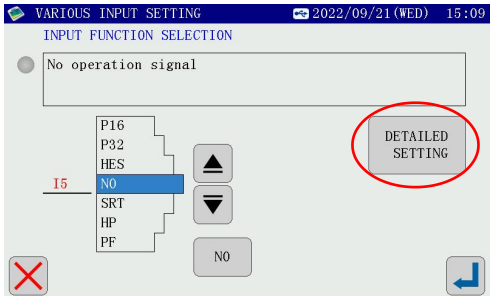
* Clicking on any of the wanted physical inputs (I1 to I9, IA to IF, EI1 to EI9, EIA to EIF) will change to the input signal selection screen.

* The part of the initial value change will be inverted.

* Press  to restore to factory settings.

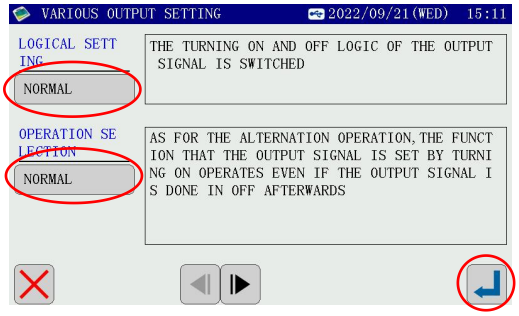


[2] Input signal selection screen



* Press  to select the type of Signal (press「SRT」here.)
(For the type of signal, please refer to the description of "3. Input signal setting table.")
* Press「DETAILED SETTING」The screen which becomes detailed setting.

[3] Detailed setting screen



* Switch to the theory of input signals. (normal/reversed)

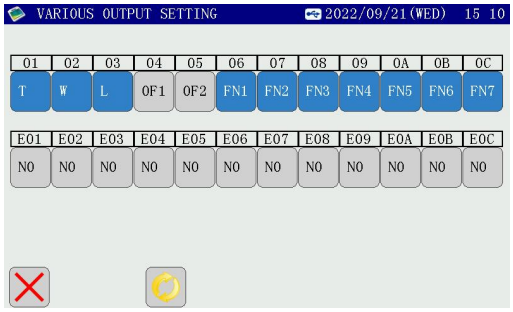
* Switch to the action of inputting a signal. (normal / alternating switch)

* Press  to confirm.
(Return to the previous screen.)

(6)Custom output signal (output signal series)



[1] Custom output signal screen

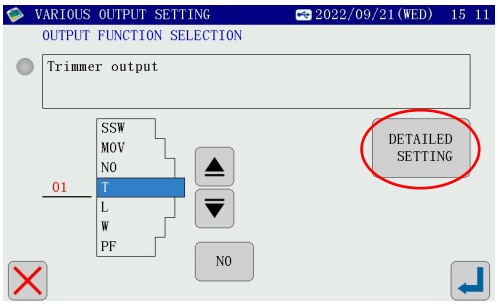


* Clicking on any of the wanted physical Outputs (I1 to I9, IA to IF, EI1 to EI9, EIA to EIF)will change to the output signal selection screen.

*The part of the initial value change will be inverted.

* Press  to restore to factory settings.

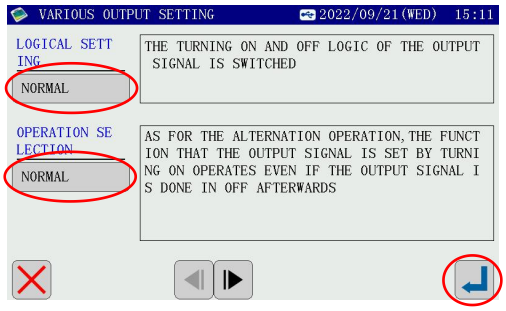
[2] Output signal selection screen



* Press  to select the type of signal
(press「T」here.)
(For the type of signal, please refer to the description of "4. Output signal setting table.")

* Press「DETAILED SETTING」The screen which becomes detailed setting.

[3] Detailed setting screen (1)



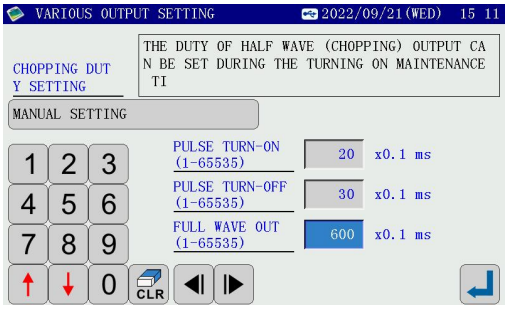
* Switch to the theory of input signals. (normal/reversed)

* Switch to the action of inputting a signal. (normal / alternating switch)

* Press  to confirm. (Return to the previous screen.)
* The detailed settings screens are (1) to (3).

Press  to convert detailed Settings Screen.

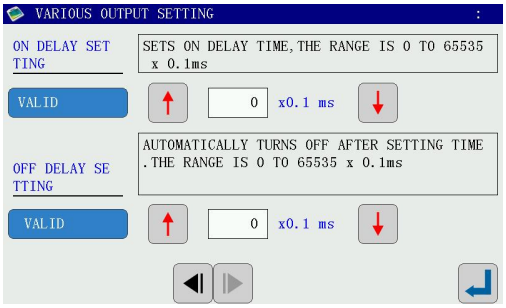
[4] Detailed setting screen (2)



* Set the pulse output.
(There are 8 kinds + manual setting)
* Full wave output time setting.
(0~6553.5ms)

Note: For the theory and operation of the signal, refer to the section diagram and operation description of "[8] Input/output interactive logic" in Control Devices.

[5] Detailed setting screen (3)



* Start delay setting.
(valid/invalid, delay range
(0 to 6553.5ms).)

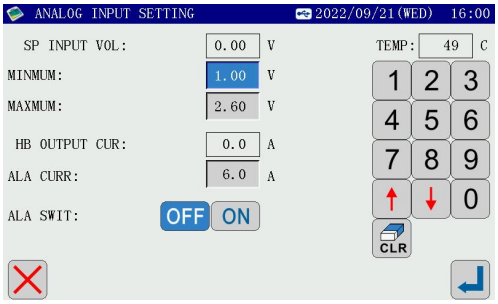
* Turn off the delay setting.
(valid/invalid, delay range
(0 to 6553.5ms).)

* Press  to confirm.

(Return to the output signal operation Selection screen.)

(7)Analog input setting





* Use the numeric keypad and ↑ ↓ to set parameter values.
Press the parameter editing box to select the setting parameters

Press  to confirm.

(7) Input signal setting table

Function name	Function	Action description
FSP	Press frame all step ON signal	When the input signal FSP is ON, the output of the pressure frame will be "ON" according to the order of [1], [2], [3], [4], [5], [6], [7], [8]. . However, when the "Set Number of Frames (FN)" function in the program mode is set to [1], the input signal FSP becomes invalid.
FSM	Press frame all step OFF signal	When the input signal FSM is ON, the output of the pressure frame will be "OFF" according to the order of [8], [7], [6], [5], [4], [3], [2], [1]. . However, when the "Set Number of Frames (FN)" function of the program mode is set to [1], the input signal FSM becomes invalid.
FP1	Press frame grouping step ON signal 1	When the input signal FP1 is turned ON, the output of the pressure frame will be "ON" in the order of [1], [2], [3], [4].
FM1	Press frame grouping step OFF signal 1	Input signal FM1 Each time the ON frame is pressed, the output of the press frame will be "OFF" in the order of [4], [3], [2], [1]. However, when the "OFB" function of the program mode is set to [NO] or [4], or the "Set number of frames (F21N)" function is set to [1], the input signal FM1 becomes invalid.
FP2	Press frame grouping step ON signal 2	When the input signal FP2 is ON, the output of the pressure frame will be "ON" according to the order of [5], [6], [7], [8].
FM2	Press frame grouping step OFF signal 2	Input signal FM2 Each time the ON is pressed, the output of the press frame will be "OFF" in the order of [8], [7], [6], [5]. However, when the "OFB" function of the program mode is set to [NO] or [4], or the "Set number of frames (F22N)" function is set to [1], the FM2 signal is invalid.
IFR	All pressure frame output release signal	When the input signal IFR is turned ON, the frame output of all (ON state) will become "OFF".
A2F	Air pressure two-stage switching signal	When the input signal A2F is turned ON, it will repeat the operation in the order of (1), (2), and (3) below. However, it is only valid when the "Select two-stage clamp mode (AF2.)" function of the program mode is set to [ON]. (1) When the input signal A2F is turned ON for the first time, the AFL output turns ON. (2) When the input signal A2F is turned ON for the second time, the AFH output turns ON. (3) When the input signal A2F is turned ON for the third time, the AFE output will turn ON.
IF1～IF8	Press frame signal 1 ~ pressure frame signal 8	When the input signal IF1 is turned ON, the OF1 output turns ON. When the input signal IF1 is turned ON, OF1 The output will turn OFF. (IF2 to IF8 are the same)
F1C～F8C	Press frame output 1 logout signal ~ pressure frame output 8 logout signal	When the input signal F1C is turned ON, the ON output of the OF1 is disabled. (F2C to F8C are the same)
OFC	All pressure frame output cancellation signal	When the input signal OFC is turned ON, the ON of the OF1 output to OF8 output is disabled.
WC	Picking thread output cancellation signal	When the input signal WC is in the ON state, the ON of the W output is disabled.
TC	Trimming thread output logout signal	When the input signal TC is in the ON state, the output of the trimming action T, L, and W output will be disabled.

HPC	Return to origin logout signal	When the HPC input signal is in the ON state, the homing action of the home button and the HP signal is prohibited.

< Input signal setting table>

Function name	Function	Action description
S6	Trimming protection signal	When the sewing machine is running, if the input signal S6 is turned ON, the sewing machine stops. If it is OFF, it will run again. In the trimming action, if the S6 input is turned ON, the S6 input will not operate until the S6 input turns OFF after the trimming operation is completed.
--1	Prohibited	
THS	Thread break detection signal	The input to the thread break detector can be used.This is valid only when the "Thread break Detector Switch" function of the program mode is set to ON.
ARS	Low air pressure detection signal	When the input signal ARS turns ON, all actions are interrupted and the error message of [E-025] is displayed. (You must turn the power back on to return to the original position.)
IO0～IOF	Hypothetical input 0 ～Hypothetical input F	When the input signal IO0 turns ON, the OT0 output will always turn ON. (IO1 to IOF are the same)
NO	No action signal	If the input signal NO is ON, there is no action.
SRT	Start signal	When the input signal SRT is turned ON, the sewing machine starts sewing. However, when the frame is OFF (increasing), this signal becomes invalid. Please pay attention.
HP	Homing signal	When the input signal HP is ON, it will return to the origin action. However, in the operation of the sewing machine, it is possible to pay attention to the timing of invalidity.
PF	Press foot signal	When the input signal PF is ON, the press foot will return to the original height. If it is ON again, it will drop to the low position.
JGP	Forward signal	When the input signal JGP is ON, the frame will move forward (inching).
JGM	Backward signal	When the input signal JGM is ON, the frame will move backwards (inching).
STP	Suspension signal	When the input signal STP is turned ON, the sewing machine is suspended in action.
BC	Specify angle (forward/reverse) signal	In order to facilitate the viewing of the needle in the position where the material is pierced, the needle will stop at the upper end of the material without picking up the material. When the input signal BC is turned ON each time, the sewing machine ○1 [forward rotation] → ○ 2 [reverse rotation] → ○ 3 [forward rotation] repeats the operation. Then, if the stepping operation switch is turned ON, the graphic data to be sewn at this position will be sewn. If the graphic data in this position is transferred, the message [M-020] will be displayed. At this time, the needle should be stopped at the upper stop position, and then the operation switch will be turned ON. The needle lowering stop position can be set by the "lower needle position setting mode".
CCL	Calculated value clear signal	If the input signal CCL is ON, the addition/subtraction calculation value will be eliminated.
SRC	Start logout signal	When the input signal SRC is turned ON, sewing of the sewing machine is prohibited according to the input signal SRT.
CCU	Add calculated value clear signal	If the input signal CCU is ON, the added calculation value will be eliminated.
CCD	Reduced calculated value clear signal	If the input signal CCD is ON, the calculated value will be eliminated.
UAD	Add calculated value plus 1 calculation signal	If the input signal UAD is ON, the added calculation value will be calculated by adding [1].
UDC	Add calculated value minus 1 calculation signal	If the input signal UDC is ON, the added calculation value will be reduced by [1].
DAD	Calculated value plus 1 calculation signal	If the input signal DAD is ON, the calculated value will be calculated by adding [1].

< Input signal setting table>

Function name	Function	Action description
DDC	Subtraction calculated value minus 1 calculation signal	If the input signal DDC is ON, the calculated value will be reduced by [1].
KNK	The target key becomes an invalid signal	If the input signal KNK is ON, the directory key is invalid.
RNK	Read graphic data key to invalid signal	If the input signal RNK is ON, the read data key will be invalid.
WNK	Write data key to invalid signal	If the input signal WNK is ON, the write data key is invalid.
INK	Enter the design button to become an invalid signal	If the input signal INK is ON, the graphic design mode key will be invalid.
MNK	Enter the modify button to become an invalid signal	If the input signal MNK is ON, entering the modify mode button becomes invalid.
CNK	Enter data conversion button to become invalid signal	When the input signal CNK is ON, the data conversion mode key is entered as invalid.
PNK	Enter the operation setting button to become an invalid signal	When the input signal PNK is turned ON, the operation setting mode key is disabled.
NNK	Enter the input/output setting button to become invalid.	When the input signal NNK is turned ON, the input I/O mode button is invalid.
FNK	Enter the function setting button to become an invalid signal	When the input signal FNK is turned ON, the function setting mode key is disabled.
SNK	Speed button becomes invalid signal	When the input signal SNK is ON, the speed key is invalid.
P01	Figure number change signal +1 input signal	When P01 is ON, the figure number will change to 801 (800+1).
P02	Figure number change signal + 2 input signal	When P02 is ON, the figure number will change to 802 (800+2).
P04	Figure number change signal +4 input signal	When P04 is ON, the figure number will change to 804 (800+4).
P08	Figure number change signal +8 input signal	When P08 is ON, the figure number will change to 808 (800+8).
P16	Figure number change signal +16 input signal	When P16 is ON, the figure number will change to 816 (800+16).
P32	Figure number change signal +32 input signal	When P32 is ON, the figure number will change to 832 (800+32). <If you want to become another figure number> Example 1) If the figure number is to become 803 P01(+1)+ P02(+2)+ 800=803 ・・・P01 signal and P02 signal must be ON Example 2) If the figure number is to become 811 P01(+1)+ P02(+2)+ P08(+8)+800=811 ・・・P01 signal, P02 signal and P08 signal must be ON ※The range of the drawing number can be changed from 801 to 863. * If P01, P02, P04, P08, P16, and P32 are to be changed, the "Graphic Selection Function (APC)" function of the program mode is valid only when it is set to ON.
HES	Head traverse signal input signal	When the HES is ON, the message [M-038] will be displayed.
I_9	Prohibited	
I_A	Prohibited	

(8) Output signal setting table

Function name	Function	Action description
OT0～OTF	Hypothetical output 0 to Hypothetical output F	When the input signal IO0 is turned ON, the OT0 output will always be ON. (The same as OT1 to OTF)
FN1～FNH	Function output 1 to function output H	When the function data FUN1 is captured during sewing, the FN1 output will be turbulent. <turbulence action> When the output is OFF in the function data (input), the output turns ON. When the function data (input) is captured in the output, the output turns OFF. (FN2 to FN9, FNA to FNH are the same)
OF1～OF8	Frame output 1~frame output 8	When the press frame input signal IF1 is turned ON, the OF1 output will be turbulent. (The same as OF2 to OF8)
NO	[NO] output	No output.
T	Trimming output	Will do the trimming action.
L	Loosing thread output	Will do the loose thread action.
W	Picking thread output	Will do the line pick action.
PF	Press foot output	Press foot will act.
AFL	Air pressure section switching frame low pressure output	When the input signal A2F turns ON for the first time, the AFL output turns ON. It must be valid when the "Select two-section frame pressing mode (AF2)" function of the program mode is set to ON.
AFH	Air pressure section switching pressure frame high voltage output	When the input signal A2F turns ON for the second time, the AFH output turns ON. It must be enabled when the "Select two-section frame pressing mode (AF2)" function of the program mode is set to ON.
AFE	Air pressure section switching frame residual pressure removal output	When the input signal A2F turns ON for the third time, the AFE output turns ON. It must be enabled when the "Select two-section frame pressing mode (AF2)" function of the program mode is set to ON.
DHP	Origin position output	This DHP output turns ON when the sewing machine stops at the machine origin position.
D2H	Secondary origin position output	This D2H output turns ON when the sewing machine stops at the secondary origin position.
RED	Operation ready to complete output	This RED output turns ON when you can start sewing (the frame is lowered to ON, etc.).Turns OFF when sewing starts.
DSW	Sewing output	During sewing (including the transfer action), this DSW output will become ON. Turns OFF when homing.
SP	Spindle start output	This SP output turns ON when the spindle motor is about to start rotating after the transfer. Turns OFF when homing.
TSE	Trimming starts output	This TSE output turns ON when the tangent action command (lower stop position) starts. At the end of the tangent action command (when the slowest output of T, L, and W is OFF), this TSE output turns OFF.
END	End of sewing output	This END output will be ON when a graphic sewing is completed. Turns OFF when sewing again.

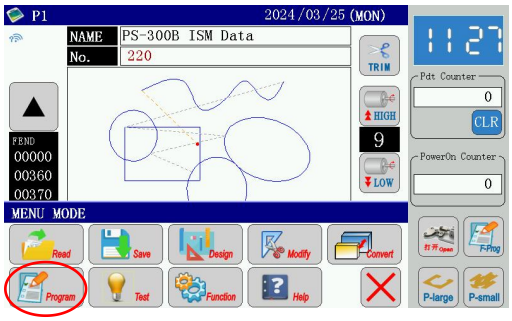
<Output signal setting table>

Function name	Function	Action description
DCS	Pause output in working	This DCS output turns ON when the pause function data (USTP, DSTP) is captured during sewing. It turns OFF when it is running again.
DST	Pause Output in homing	This DST output turns ON when an emergency stop is in progress. It turns OFF when it is running again. However, if the suspension of the function data (USTP, DSTP) is suspended during working,it will not be output.
HPO	Output back to origin position	This HPO output turns ON when the home button or HP signal is returned to the home position.
ERR	Fault occurrence detection output	This ERR output will turn ON when a fault or a message is generated.
CUE	Add calculation to complete the output	This CUE output will be ON when the calculated value of the addition calculation is reached. At the same time, the clearing of the calculated value becomes OFF.
CDE	Reduce calculation completion output	This CDE output turns ON when the calculated value of the subtraction calculation is reached. At the same time, the clearing of the calculated value becomes OFF.
DTS	Thread break detection stop output	This DTS output turns ON when thread break detection is stopped. It turns OFF when it is running again.
--1	Prohibited	Not available.
DRT	Spindle rotation output	This DRT output turns ON while the spindle motor is running. (including in the winding core)
DN	Lower stop position output	This DN output turns ON when the position signal input is stopped below.
CB	Buzzer output	This CB output turns ON when the plate maker's beep is ON. (When the fault message, the addition calculation/subtraction calculation prompt message occurs)
UP	Upper stop position output	This UP output turns ON when the position signal input is stopped at the top.
PWR	Power input and output	This PWR output turns ON when the power is turned on.
PUS	Press foot position output	This PUS output turns ON when press foot is at the origin height.
MSG	Output in the prompt message	This MSG output will be ON when the message is in progress. (It will not turn ON when a fault occurs)
OP1	General purpose output 1	Not available.
OP2	General purpose output 2	Not available.
SSW	Suspend input and output in working	This SSW output turns ON while the input signal STP is turned ON.
MOV	XY moving axis moving signal	It will turn ON during the move. (It will not turn ON in automatic sewing).

11、Program Mode Groups

Setting method

(1) Method for Setting the Parameters
1. Access to Program Mode Group



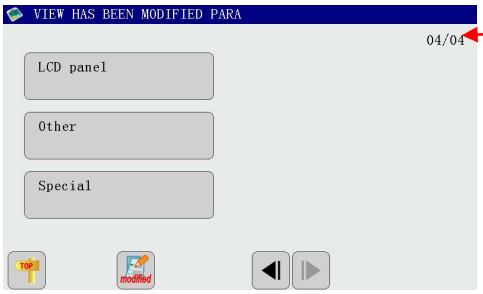
* Press 

under Standard Interface，

Then press 

(Program Mode Group) to enter into the interface of Program Mode.Group

2 . Program Mode Interface



the pages which have been turned.

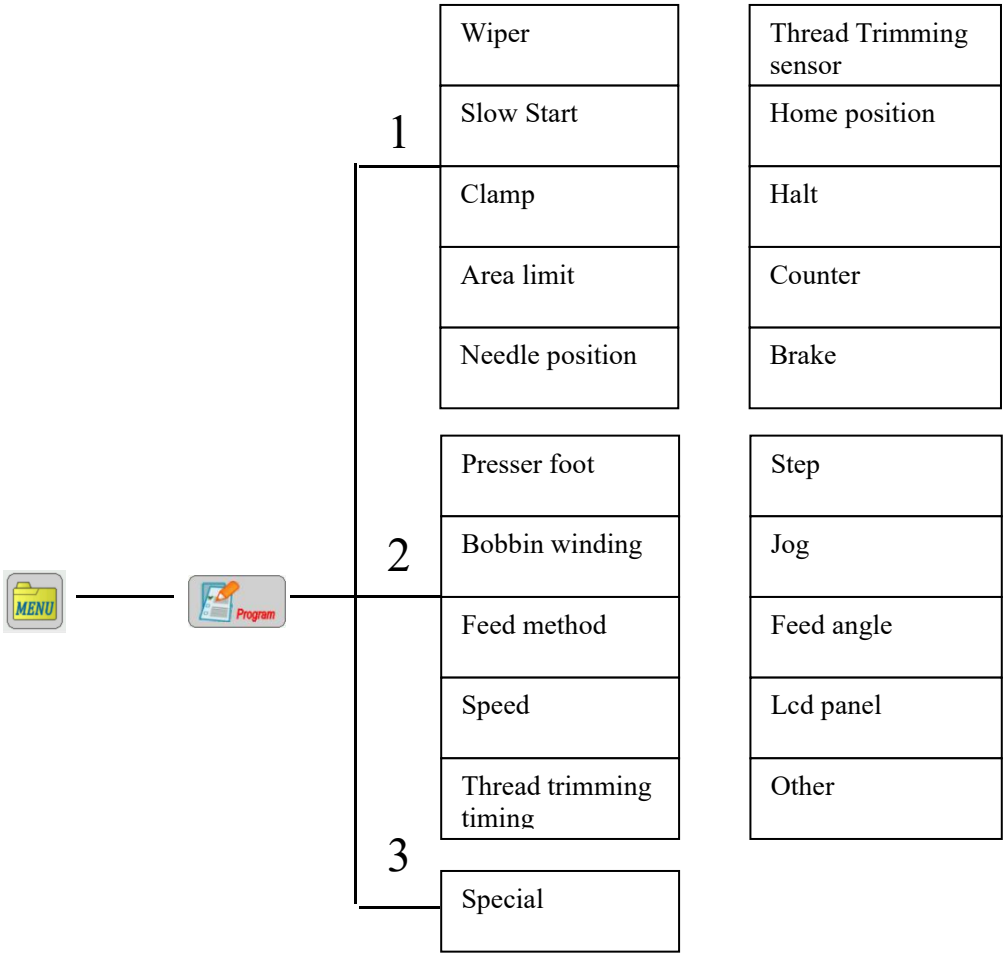
* Under the interface, many options are available.
* Select the Function Mode and the [Interface for Setting Functions] will be displayed.
(In this case, Halt(Interim Stop) shall be pressed.)

Press  to enter into next page.

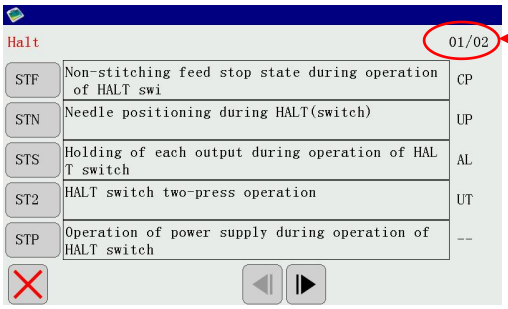
* Press 

to view modified parameters.

Configurations of Functions for Program Mode Groups



3 . The Interface for Setting Functions
(When the system comes to a halt)



The page number of select

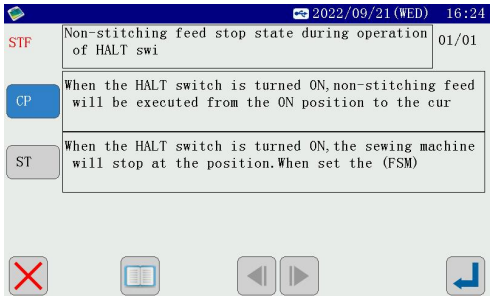
* The interface for setting functions may have more than one page.

Turn to the next page by press .

* Select the Function Mode and the [Interface for Changing Pre-set Parameters] will be displayed. (In this case, the Function Mode [STF] (Shift Condition under Emergency Stop) shall be pressed.)

4 . The Interface for Changing Pre-set Parameters (Under SFT Mode)

[In this case, two options are available CP (When the Emergency Stop Button is pressed, the Non-sewing shift will continue until it comes to the point of a curve. At this point, re-start the system) and ST (When the emergency Stop Button is pressed, the sewing machine will stop immediately. If FEM =[OFF], the system can not be re-started. It shall return to the Zero-point first; if FEM=[ON]). For different Function Modes,the value can be characterized as State, Number or ON/OFF. If the value is a number, please refer to Note:
Explanations on [Numerical Settings] below]



* The Interface for Changing Pre-set Parameters may have more than one page.

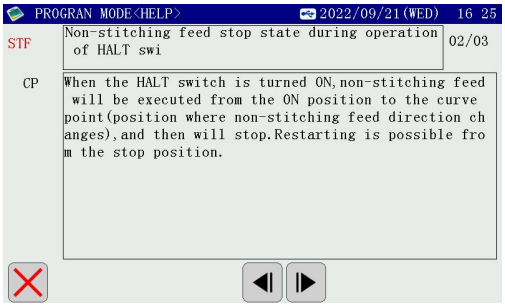
Turn to the next page by press .

* Press the button for setting parameters to change the parameters of a related function. (In this case, CP Button shall be pressed).

* Press to confirm， and return to the previous interface.

Note: Press to magnify the interface of the set value and the whole text of the explanation will be displayed.

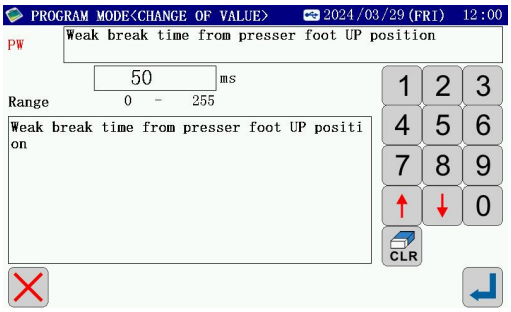
5 . The Interface for the Explanation on Functions
(When CP is set as the value of STF)



* The Interface for Changing Pre-set Parameters may have more than one page.

Turn to the next page by press  .

Note: [Numerical Value Setting] will display the interface for parameter change.



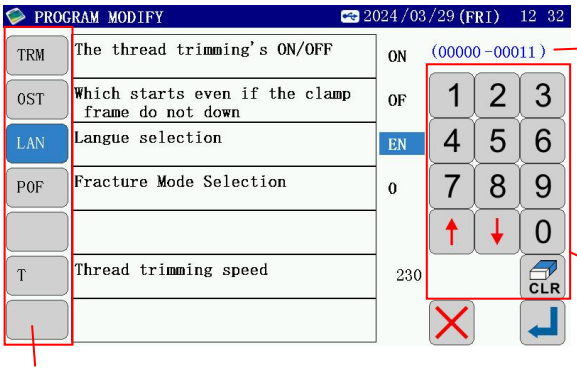
* Change the pre-set parameter by Number keyboard.

* Press  to confirm， and return to the previous interface.

Quick setting method

1. One of the quick function key settings is "parameter modification".

2. Press  in the function shortcut key group of P1 and P2 screens，Enter the parameter quick setting screen.



Select the range for modifying parameters (the corresponding button and values highlight display , such as LAN)

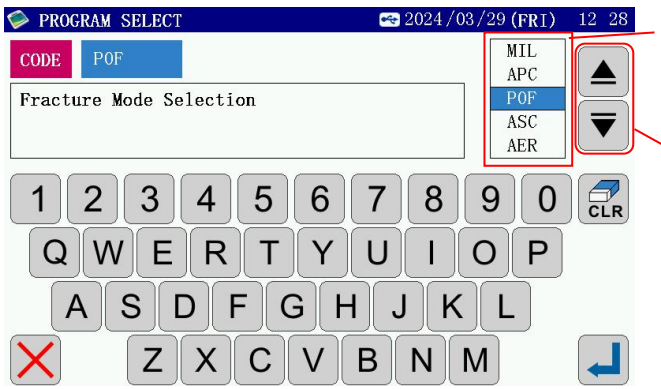
Number keyboard keys
Modify parameter values

The name of the modified parameter.
Short press to select the parameter for modification, long press to enter the parameter selection screen, and change the parameter that needs to be modified.

Press Perform modification operations.

Note: The quick setting method only supports setting 7 parameters

3. Parameter selection change screen



Based on the input code name, explore the code list, click to select this code

Select Code

Press Execute parameter selection.

12、List of Program Mode Functions

Methods for Switching between Program Mode Groups
If a Pattern Input Unit is adopted, please refer to the Explanations on [Sewing Pattern Input / Program Mode groups].
If a Control Panel is adopted, please refer to [Explanations on the Control Panel].
The items marked with (1)are not available in the Program Mode Group of the Pattern Input Unit. They can only be set through the Control Panel.

Explanations on the List

[Types]		
[Signal]	[Name of the Function]	[Function Mode Group]

Wiper		
WIP	Wiper ON/OFF	4(1)
W1	Start time of Wiper output(W)	B34
W2	Time for Wiper output(W)	B35

Slow start		
S	Speed of Slow Start	B44
SL	Setting of Slow Start	B45
SLN	Stitch Number of Slow Start	B46

Clamp (Out Presser Foot)		
OST	Capable / incapable of running without the Clamp being dropped	G40
RPT	Setting for Repeated Sewing	G1
RP (1-8)	Setting of Repeated Sewing for No.1 to 8 Presser Foot	G(2 -9)
WHY	Setting for the Sequence of Presser Foot Actions	G10
FSR	Removal of Presser Foot Step Motion	G11
1PD	Setting for Single Pedal Operation	G12
1T	Setting for the lagging of Single Pedal Operation	G13
(1-8)A	Setting for the time of output-delay (ON) for No.1 to 8 Presser Foot	G(14 -21)
(1-8)B	Setting for the time of output-delay (OFF) for No.1 to 8 Presser Foot	G(22 -29)
OFB	Setting for the number of steps of Presser Foot Action.	G30
FN	Setting for the number of actions taken by an Effective Presser Foot.	G31
CF	Setting for the Motion of Presser Foot.	G32
F21N	Setting for the number of actions taken by an Effective Presser Foot when the Presser Foot Action is to be divided.	(Of1 -Of4)
F22N	Setting for the number of actions taken by an Effective Presser Foot when the Presser Foot Action is to be divided.	(Of5 -Of8)
CF1	Setting for the motion of Presser Foot when the Presser Foot Action is to be divided. (OF1 to Of4)	G35
CF2	Setting for the motion of Presser Foot when the Presser Foot Action is to be divided. (OF1 to OF4)	G36
F4BN	Setting for the number of groups of Effective Presser Foots	G37
F4SN	Setting for the number of steps for each group	G38
AF2	Selection of Presser Foot for the two stages of FEED Motion.	G39

Sewing area		
ALC	Removal of Sewing Area Limitation	A1
XL	Settings for the Area Limitation at the [Left Side of X-axis]	X5
XR	Settings for the Area Limitation at the [Right Side of X-axis]	X6
YU	Settings for the Area Limitation at the [Back Side of Y-axis]	X7
YD	Settings for the Area Limitation at the [Front Side of Y-axis]	X8

Needle position		
RU	Negative Upward Rotation of the needle after thread trimming	B5
R8	Setting for the Negative Rotation Angle of RU Motion	B6
U8	Tip Angle of the Needle at Needle Up Stop Position	B7
D8	Tip Angle of the Needle at Needle Down Stop Position	B8

Bobbin winding		
W	Setting for the Speed of Bobbin Winding	B47
WSM	Setting for the Operations of Bobbin Winding	B48
WT	Setting for the Time of Bobbin Winding	B49

Home position		
HPM	Method for Resetting Home Position during Halt	A10
HPC	Zero Resetting forbidden at the time when power is turned on	A11
HPF	Automatic Zero Resetting Forbidden	A12
HPK	Setting for Reset Button	A14
2HS	Method for Stopping at the Second Home position	A15
FHP	Operation Instruction for Random Home position	A16
CHS	Home position Correction during Readout Process	A17
SHX	Zero Resetting for [X-axis]Area Limitation	X9
SHY	Zero Resetting for [Y-axis] Area Limitation	X10
HPS	Setting for Clamp State within the Zero Resetting Time Period when the power is turned on	A13

Halt		
STF	Condition of the FEED STOP under emergency stop	A2
STN	Condition of the NEEDLE STOP under emergency stop	A3
STS	Retain outputs under emergency stop	A4
ST2	Actions taken under second emergency stop	A5
STP	Power source operation when the emergency stop button is pressed	A7
STD	Actions taken by the clamp when the system comes to a halt.	A8
STL	Prevention against same stitch start point after a halt	A9

Counter		
CUP	Count-up Function	A21
CDN	Count-down Function	A22
UCM	Method for Clearing the Set Value of Count-up Counter	A23
DCM	Method for Clearing the Set Value of Count-down Counter	A24
PCM	Method for Clearing the Count Value after the power is restarted.	A25
CN	Count Stitch Number	A26
UCC	Forbid correcting the Value of Count-up Counter	A27
DCC	Forbid correcting the Value of Count-down Counter	A28
USC	Setting for sewing according to the Value of Count-up Counter	A29
DSC	Setting for sewing according to the Value of Count-down Counter	A30

Brake		
WBK	Setting for Weak Break	B1
BKM	Setting for Weak Break Function	B2
BNR	Setting for the Sound of Weak Break	B3
BKT	Setting for the Time of Weak Break	B4
PW	Setting for the Time of Weak Break during Presser Foot Action	X23

Presser foot		
PD	Setting for Presser Foot Time1(when it drops)	B36
PU	Setting for Presser Foot Time 2(when it rises)	B37
UW	Setting for Presser Foot Time 3 (when it rises)	B38
BPF	Setting for Presser Foot during the FEED Motion after Fake Stitching.	B26