

USER'S MANUAL

Operating Manual

- Windows OP Series_V1.2
- KS - Series
- SB7 - Series
- SV - Series
- MAS - 12
- ES
- ESC

1. THIS IS AN INSTRUCTION FOR SAFE USE OF **SMF**® AUTOMATIC EMBROIDERY MACHINES. READ THOROUGHLY BEFORE USE.
2. CONTENTS IN THIS INSTRUCTION MAY CHANGE, WITHOUT PRIOR NOTICE, FOR IMPROVEMENT OF MACHINE QUALITY AND THUS MAY NOT CORRESPOND TO THE MACHINE YOU PURCHASED. CONTACT YOUR SALES AGENT FOR INQUIRIES.
3. THIS IS DESIGNED AND MANUFACTURED AS AN INDUSTRIAL MACHINE. IT SHOULD NOT BE USED FOR OTHER THAN INDUSTRIAL PURPOSE.

Contents

1. Operating Program Install

1.1 Install	1
1.2 Backup	2

2. Design

2.1 USB	3
2.2 Memory Copy	3
2.3 Design Call	5

3. Needle Setting(Color)

3.1 Needle Select	6
3.2 Needle Color	7
3.3 Presser Foot Height Setting	8
3.4 Offset Needle Bar Setting	

4. Frame

4.1 Position	9
4.2 Exclude	9
4.3 Trace	10
4.4 Frame Offset Setting	11
4.5 Hoops	13

5. Float

5.1 Float	15
-----------------	----

6. Using Head Setting

6.1 Head Select	16
6.2 Sensing Head Set	17
6.3. Presser Foot Sensor	

7. Machine

7.1 Machine Information	18
7.2 Machine Test	19
7.3 Machine Service	20
7.4 Sensor	20

8. Time & Language

8.1 Language	21
8.2 Lock Setting	22
8.3 IP Setting	23
8.4 Date, Time & Volume Setting	23
8.5 Memory Initial	

9. Setting

9.1 Setting	25
9.2 Frame Back	28
9.3 Trimming	29
9.4 Jump	30
9.5 Backtack	30
9.6 Speed	
9.7 Frame	31
9.8 Others	

10. Repeat

10.1 Design Repeat	33
10.2 Design Filtering	36
10.3 Design Edit	36
10.4 Design Divide	

1. Operatin Program Install

When the machine is shipped out, the operating program is pre-installed and pre-set. However, when the program was damaged or the settings need to be changed or upgraded, the installation of the program is required.

In this case, the program can be re-installed or the set values can be initialized.

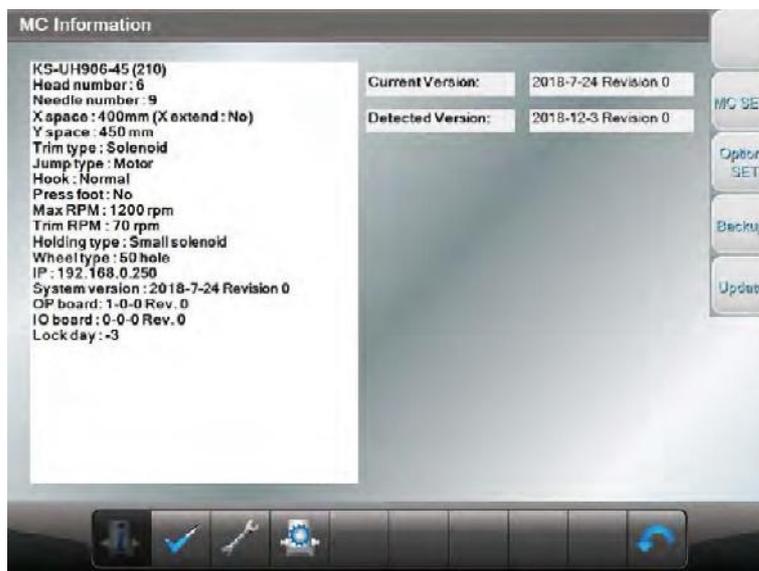
[Caution]

- ※ If users re-installs, updates, and initializes the operating program, it may cause malfunction or physical damage of the machine.
(If you are unfamiliar with the function, please contact our distributor and A / S center for assistance.)

- ※ When reinstalling or updating the operating program, never turn it off randomly.
If the power is turned off during the update process, stop using the machine and contact your nearest dealer or service center.

1.1 Installation

Installation is to install the operation program and necessary data file of the embroidery machine through the input device (USB) into OP Box.



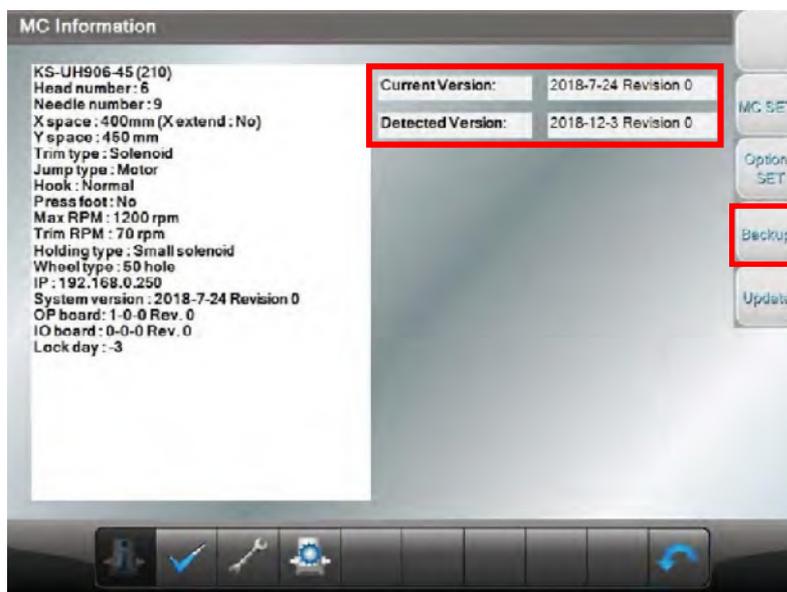
[Fig. 1.1]

You can install operating program and design by using USB input device.

1.2 Backup

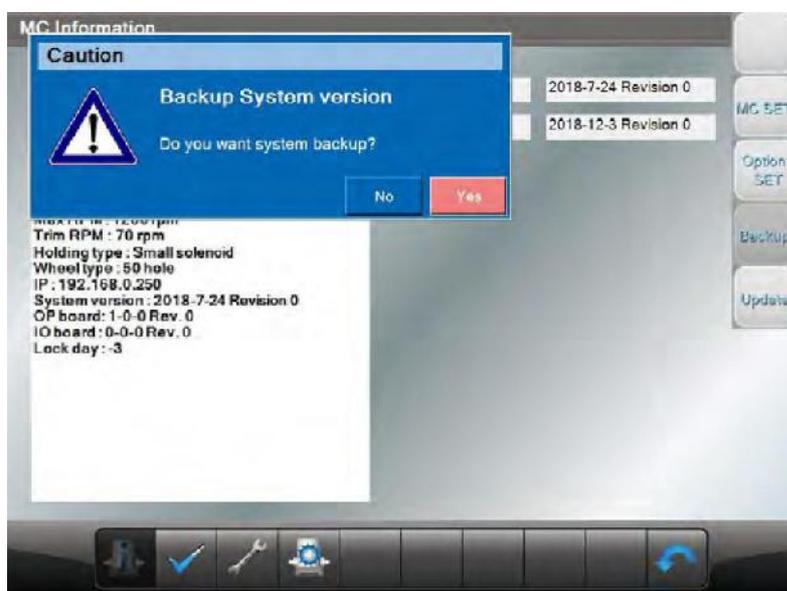
Backup is conducted in the opposite direction from installation. For possible loss of data, the operating program and the data files should be saved in a flash memory(USB). If there are no operating program and data files or if the memory has been formatted, the backup function cannot be used..

If you select  icon in the [Fig.1-1], the machine information screens shows up like [Fig 1.2]



[Fig 1.2]

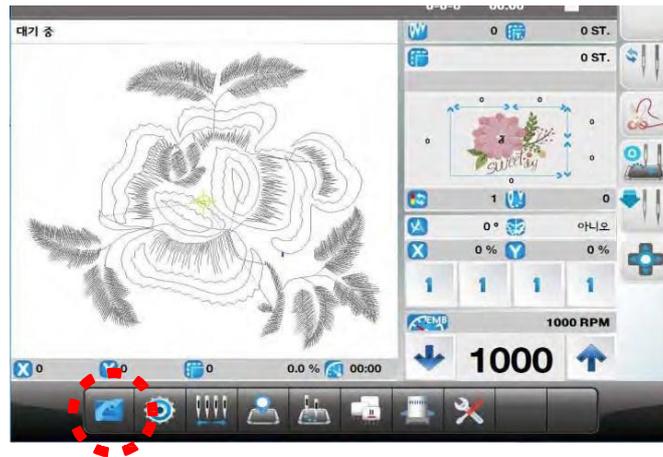
Select Backup in [Fig 1.2] and press 'YES' in [Fig1.3] The back up will proceed.



[Fig 1.3]

2. Design

- The design menu consists of inputting, calling, copying, deleting, and exporting from or to the external device, the design which is going to be embroidered.



[Fig 2.1]

2.1 USB(Design Input)

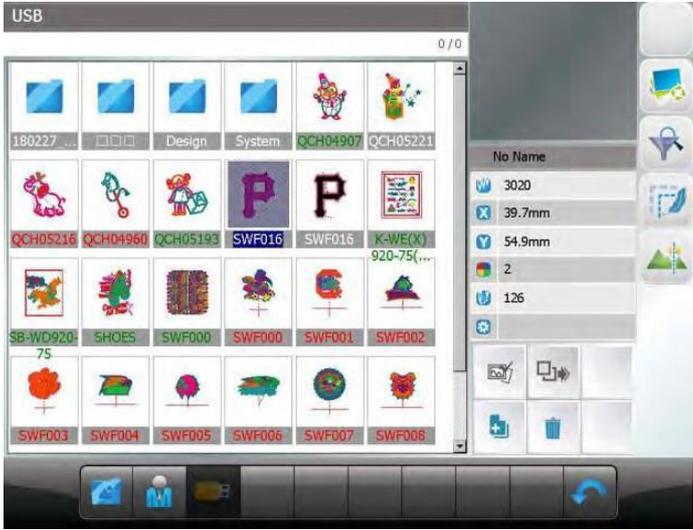
- Select design menu



[Fig 2.2]

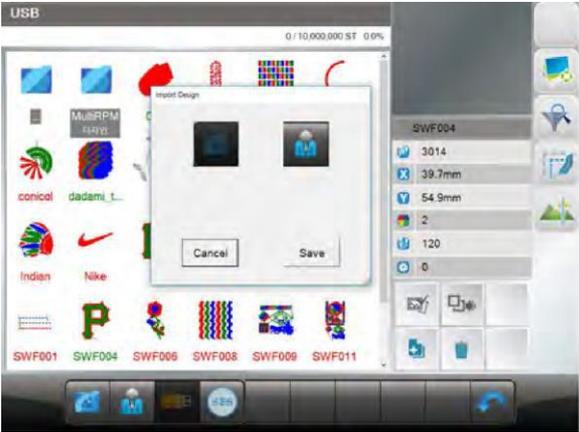
2.2 Memory Copy

- Insert the USB memory into the USB port and select  icon shown in [Fig. 2.2] to show the design file in USB. To work by copying the file to OP, select the design file and select  icon in the bottom right corner.

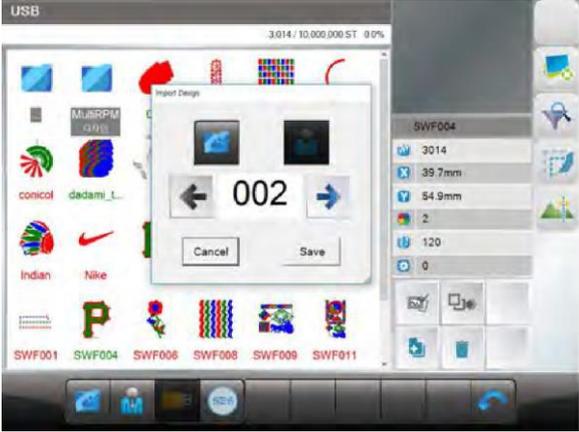


[Fig 2.3]

① There are two storages to save. Choose the one where you want to save.



[Fig 2.4]



[Fig 2.5]

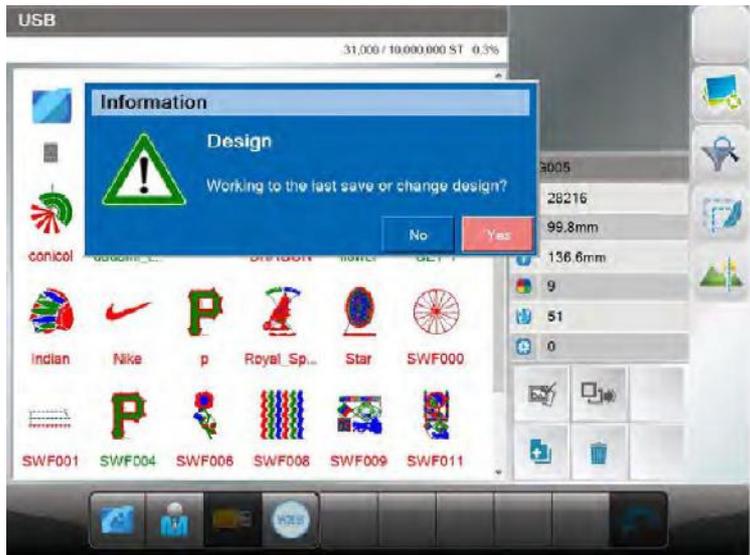
② If you select the specific design file, you can check the design information from the right side of the screen shown in the [Fig 2.6].



[Fig 2.6]

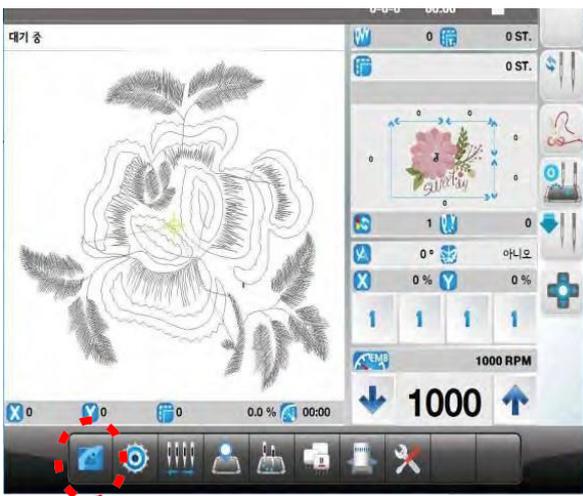
2.3 Design Call(Import the design file you want to work on)

- ① After you save the design by the way of [Fig2.1], and leave the design menu. Then the message “Do you want to work the last saved(changed)design?” will show up. If you select “YES”, the last saved design will be called and embroidery will be ready

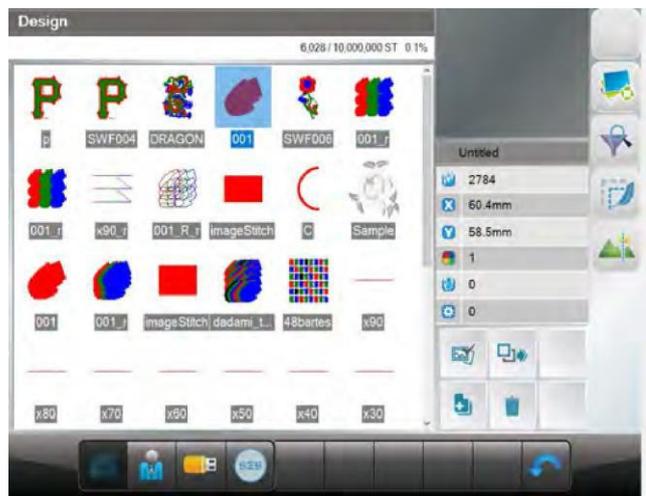


[Fig 2.7]

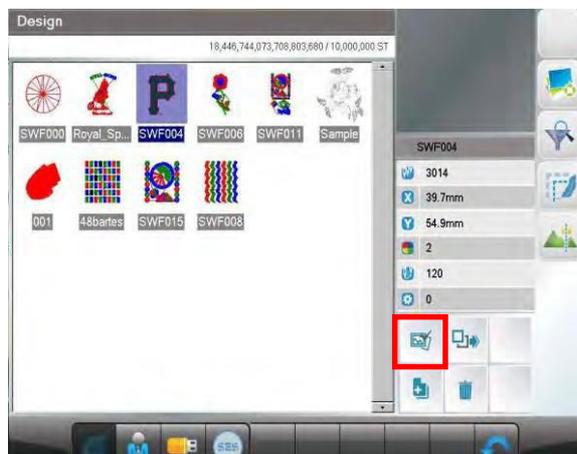
- ② The way to call back the embroidery designs saved in the memory is to press the  icon in [Fig 2.1] Then, embroidery designs stored in the memory appear as in [Fig 2.8], [Fig 2.9].



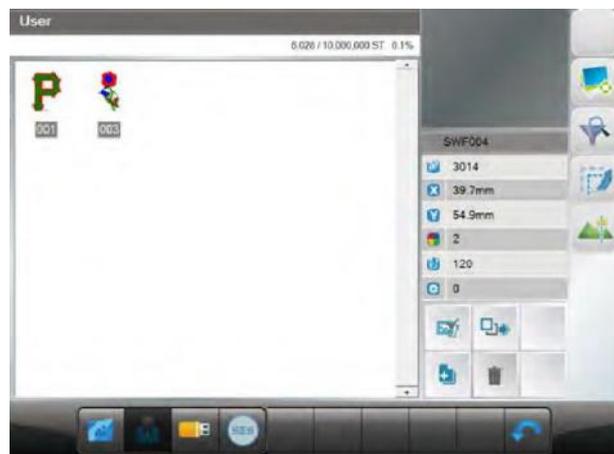
[Fig 2.1]



[Fig 2.8]



[Fig 2.8]



[Fig 2.9]

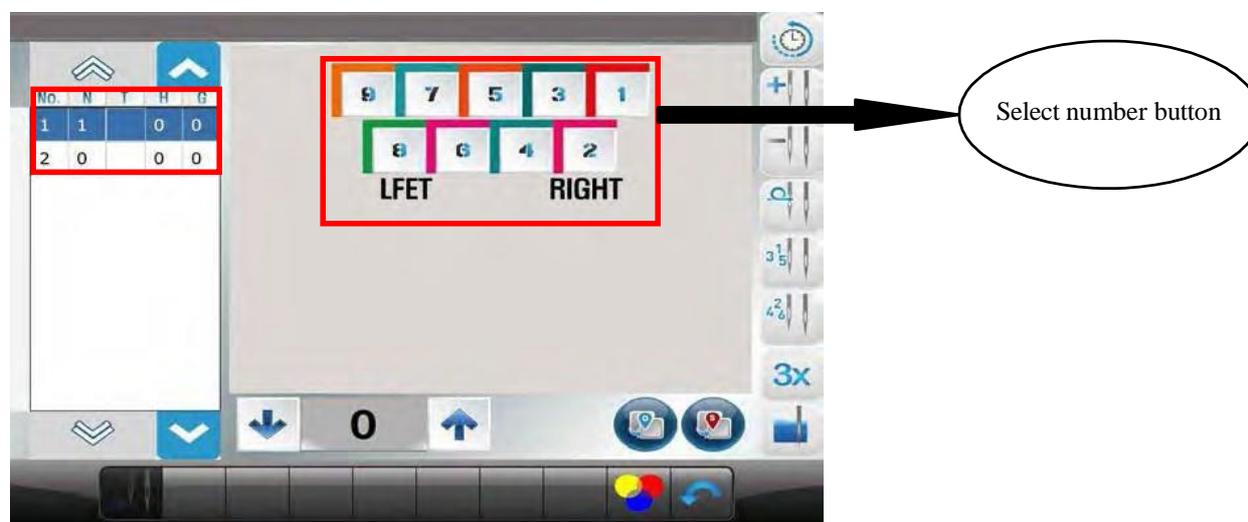
- ③ Select a design and press  icon. Ready to embroidery.
- ④ Select a design and press  icon. You can export the design to USB.
- ⑤ Select a design and press  icon. You can delete the design.

3. Needle Setting(Selects or changes the needle bar)

This function is to enable automatic change of needle bars when the thread color change code appears. It is also able to change the colors of the embroidery design displayed on the screen.

3.1 Needle Select

Press  icon and go into the menu like [Fig3.1]. The table number window is displayed for the number of changeable colors which is selected.



[Fig. 3.1]

[Note]

Once the needle bar setting is completed, the set values become default and remain preserved even after the power is turned off. When other embroidery design is called, the needle bar setting values are unchanged. As such, when the design is changed or other setting is desired, the needle bar setting shall be adjusted again

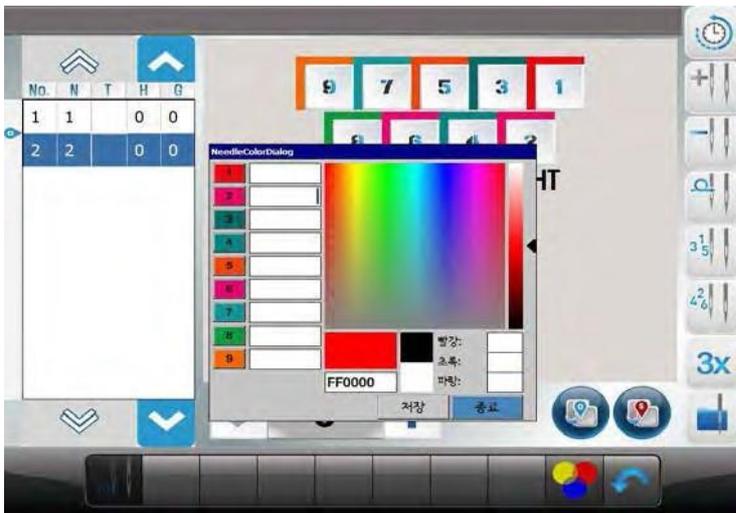
3.2 Needle Color



This function is to easily show the needle bar (color) change-related information on the design by marking colors on each needle bar.

[Note]

※ It does not affect the actual embroidery work.



[Fig 3.2]

After select the number of needle bar, then the screen which you can select the color shows up as the [Fig 3.2] Touch the desired color and press the save button to finish.

3.3 Presser foot height setting

[Caution]

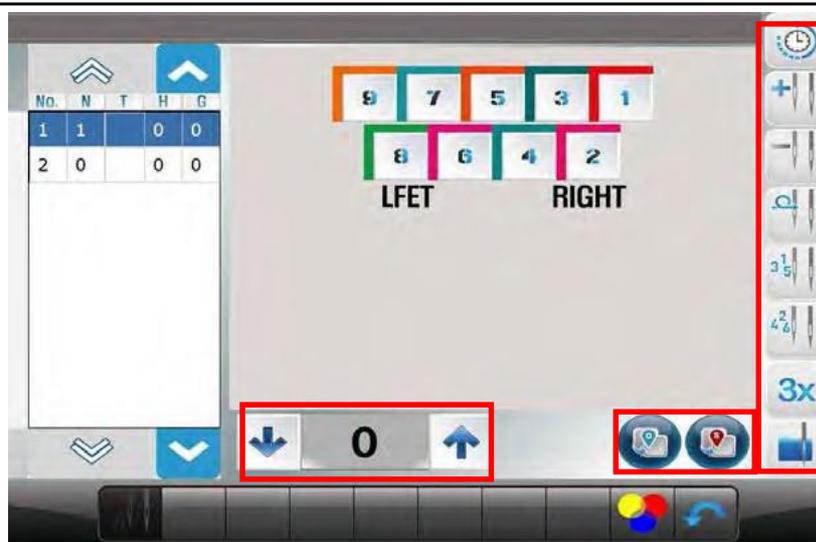
※ Only for models with motor type presser foot.

This function sets the height of presser foot of each needle bar.

When the needle bar is changed on embroidery, it automatically changes the height of the presser foot to the value which was set.

[Note]

You can adjust the height from the step 0 to 7.(Step 7 is the highest setting)



[Fig 3.3]

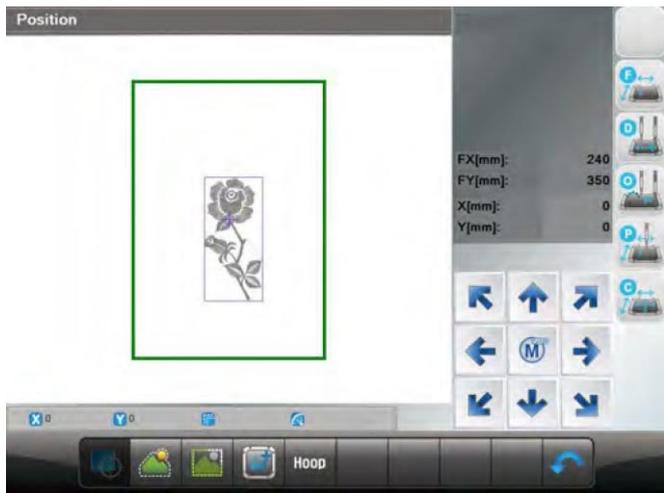
3.4 Offset Needle Bar Setting

Insert	This is used to insert the number of a needle bar in between the figures of needle bar entered.
Delete	This is used to delete the number of a needle bar chosen from the already entered needle bar numbers.
Group	This is used to set the head to be used or not to be used automatically when the color change code is encountered.
Default	To initialize the settings to default values.

4. Frame

This function is to check whether the machine is prepared to conduct embroidery before actual work. There are five functions including work position, Trace, Exclude, Offset position and Hoops and Trace.

Press on the function menu  and then sub-menus will appear as in [Fig4.1]



[Fig 4.1]

4.1 Position

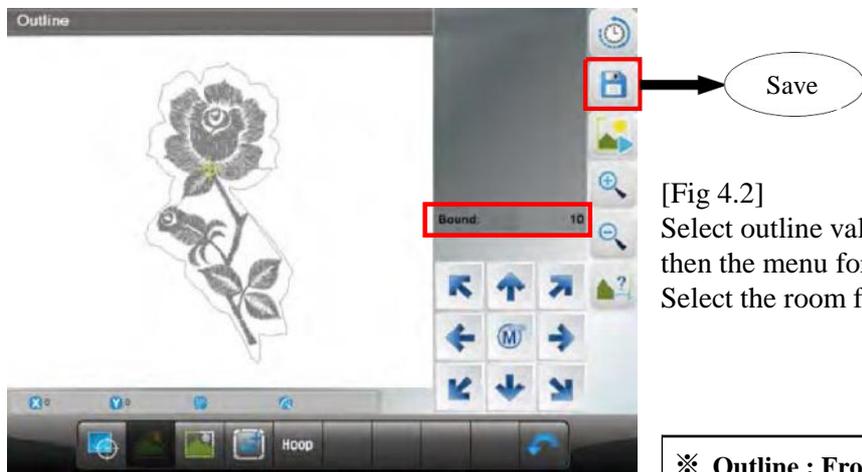
It shows whether the called design contacts the X, Y limits without actually carrying out embroidery work.

[Caution]

When the main power is off, and the frame is pushed by hand, the frame's origin will change. Likewise, when the frame's origin is changed, the work position function does not properly perform.

4.2 Exclude

This function is to embroider the outline of the called design.



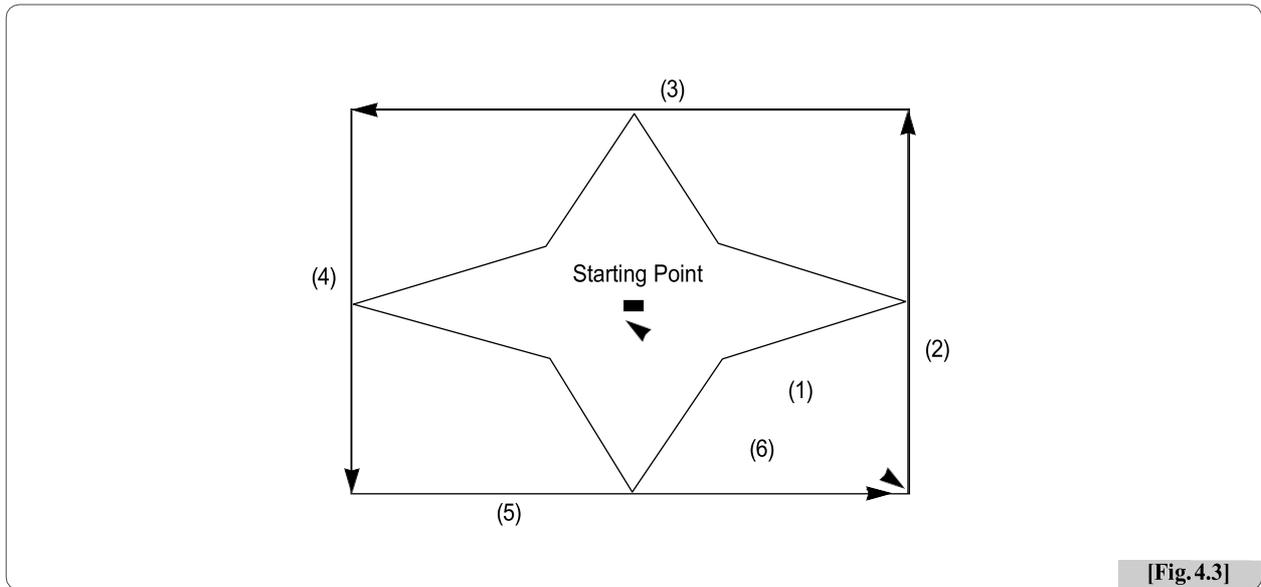
[Fig 4.2]
Select outline value and press save button, and then the menu for design saving will appear. Select the room for design saving and press save.

※ Outline : From 0 to 30 by 1mm

<Fig 4.2>

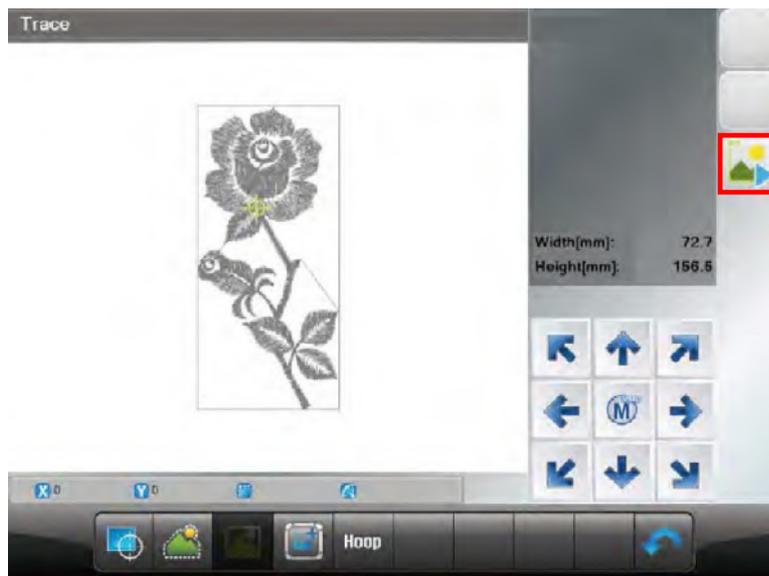
4.3 Trace

This function is to briefly check whether the design size goes beyond the X, Y limits, if the embroidery of chosen design begins from the current frame position..



[Fig. 4.3]

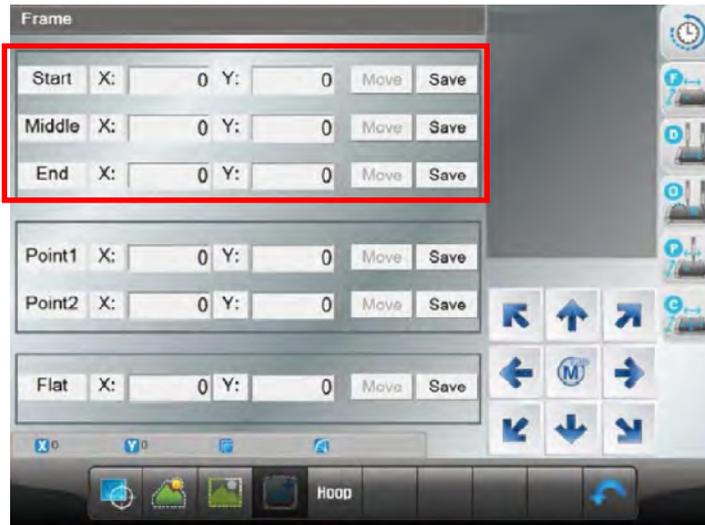
The arrow marks in [Fig. 4.3] show the feed route of the frame. While the frame moves fast between the maximum X,Y range and the minimum X,Y range, the function checks whether the design goes beyond the frame limits. If so, the frame operation will be stopped, and the message “Frame Limit Error” will appear on the screen..



[Fig 4.4]

4.4 Frame Offset Setting

The function is to decide the starting position of the embroidery design, the offset position, and the stop position after work completion to ensure more convenient embroidery work.



[Fig 4.5]

[Note]

Frame offset setting configurable buttons are enable to use when check the frame origin only before selecting frame offset setting.

(Design Start Point) :

It decides the frame's start position for the called design. When the starting position is pre-determined, regardless of the current frame locations, the frame automatically moves to the start position when the embroidery work begins.

(Offset Middle Point) :

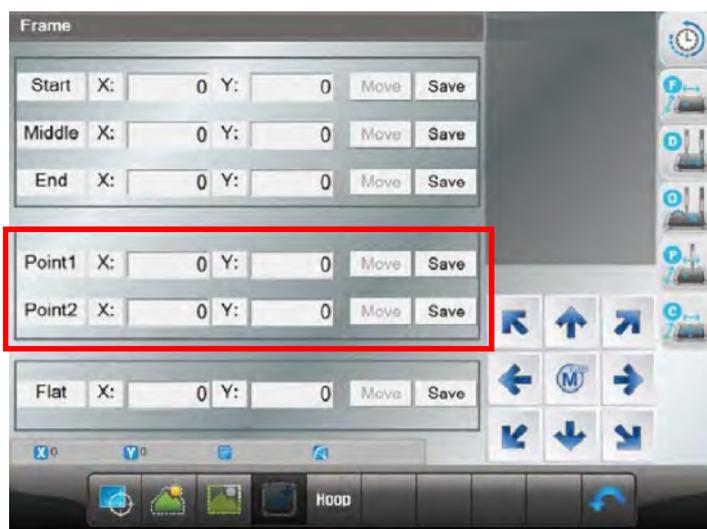
It decides the middle position between the design starting position and the stop position when the design is completed to prevent the needle bar from contacting the embroidery materials. If the function is unnecessary, the same value can be entered for the design starting position and the stop position after design is completed. It does not adversely affect the machine operation.

(Design Offset Point) :

It decides the frame position where design is completed or the offset frame position. This function is useful for applique work and the replacement of hoop..

[Caution]

If the frame coordinates setting (offset) is not set as “Yes” in the basic setting, the setting of the frame coordinates is not applied during embroidery.



[Fig 4.6]

[Fig 4.6] Point 1, 2 : This function is to set whether to use the virtual frame limit setting function.

[Fig 4.7] Select Flat (FRAME CENTER) : This function is to check the frame origin and move the frame center.



[Fig 4.7]

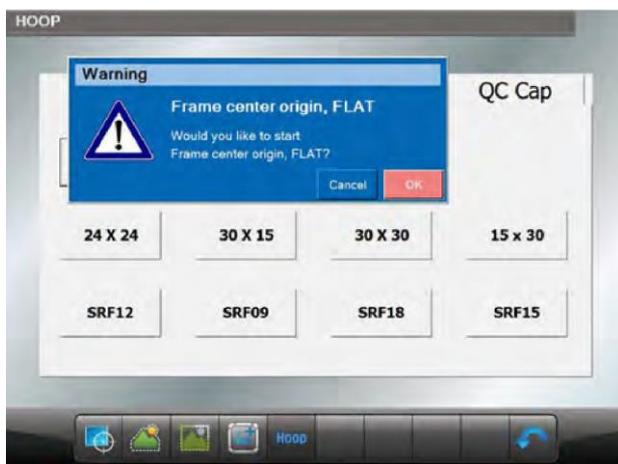
4.5 Hoop Hoop

This function is to select the hoop of desired size. If you press Hoop icon from the [Fig 4.1], [Fig 4.8] screen will appear.



[Fig 4.8]

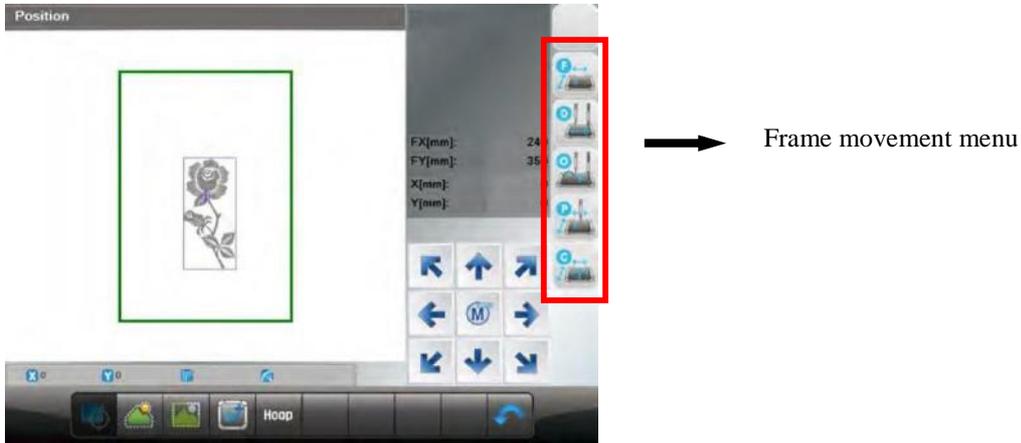
If you click on the size of the hoop, the message box appears whether you want to move to the center of the hoop. If you click "OK", the hoop will automatically search for the origin and check the X and Y hoop limit as much as the offset position. After finding all, it will move to the center of the frame. After selection is completed as shown in [Fig 4.9], it displays the selected size as [Fig 4.10].



[Fig 4.9]



[Fig 4.10]



[Fig 4.11]



Frame Origin : This function is to re-check and set the frame origin.



Data Origin : It remembers the stop position of the frame when it is paused during embroidery work. Therefore, when the user desires to move the frame by using the frame move buttons or resumes embroidery after conducting other jobs, the frame could return to the last stop position.



Power Origin : It remembers the last stop position although the power is out during embroidery work. Therefore, when the power is on, and the return to origin after blackout function is pressed, the frame moves to the last stop position. However, before embroidery work starts, the frame origin shall be accurately set.



Design Origin : It makes the frame return to the embroidery starting position.

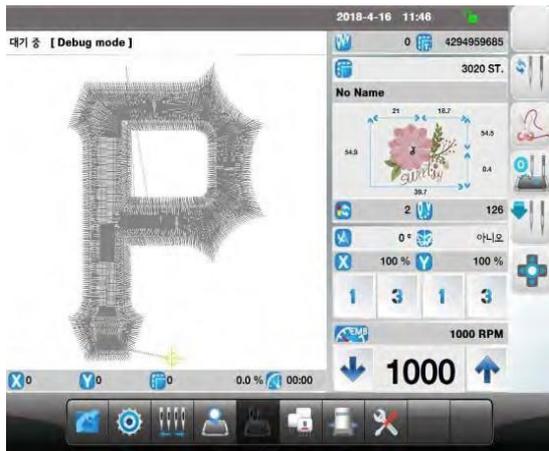


FRAME CENTER : This function is to move the frame to the frame center . After resetting the origin, the frame moves to preset or saved center position.

5. Float

This function is to conduct the embroidery work while skipping the embroidery for the desired part of the design.

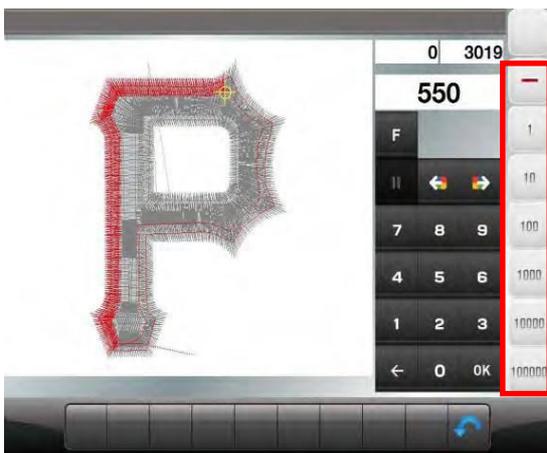
[Fig 5.2] is the screen for non-stitching operation and it appears when  icon is pressed in [Fig5.1]



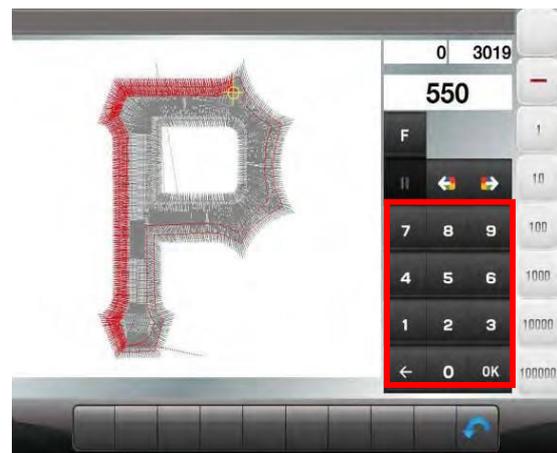
[Fig 5.1]



[Fig 5.2]



[Fig 5.3]



[Fig 5.4]

As in [Fig 5.3], non-stitching operation can be set using the set number of stitches such as ± 1 , ± 100 , ± 1000 , ± 10000 or the \pm COLOR button.

As in [Fig. 5.4], values can be directly entered by using number buttons and “OK”

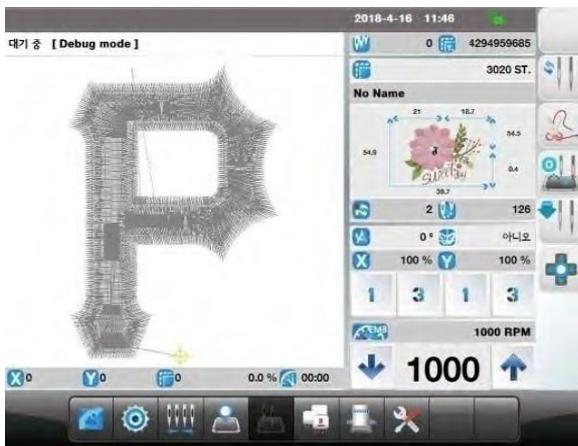
※ If the user press start, stop button in non-stitching operation, design position will be moved as the same value of +1, -1 buttons.

6. Using Head Setting

This function is to select the heads the user desires to use.

6.1 Head Select

Press  icon in [Fig 6.1], and then [Fig 6.2] screen will appear.



[Fig 6.1]



Yes



No

[Fig 6.2]

6.2 Sensing Head Set

Press  icon in [Fig 6.1], this is a function of sensing head set as shown in [Fig 6.3]



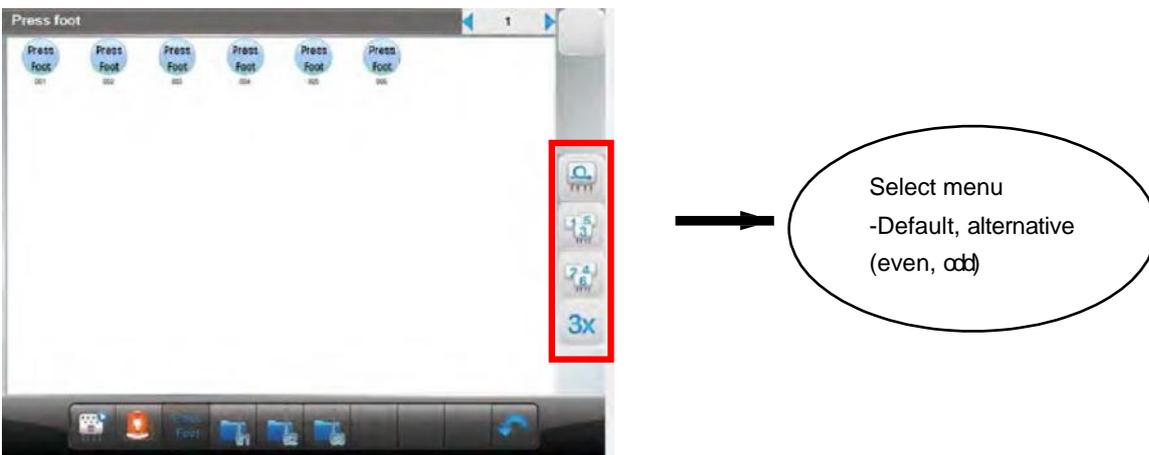
[Fig 6.3]

6.3 Presser Foot Sensor

Selection of presser foot sensor. User can select 'Yes or No'

(※ Only for models that can be adjusted presser foot height)

Press  icon in [Fig 6.1], and the screen [Fig 6.4] will follow up next.

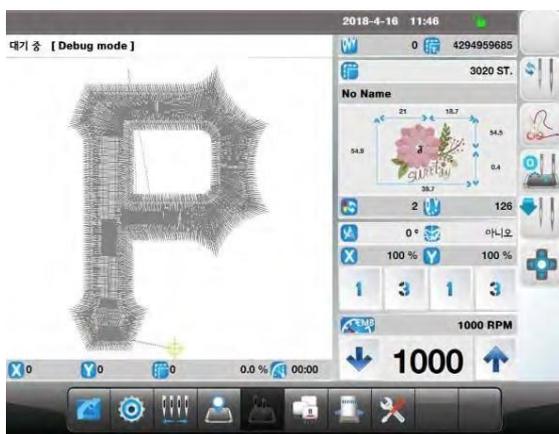


[Fig 6.4]

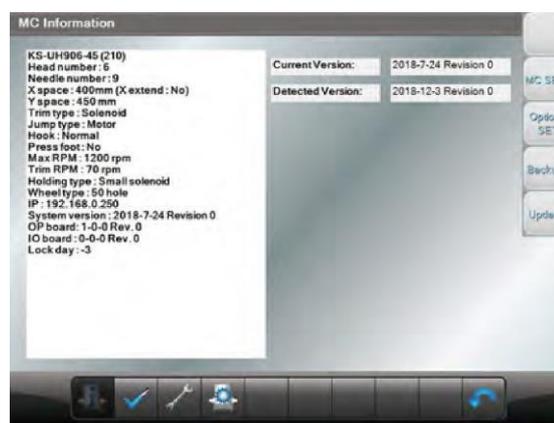
7. Machine

This function is to show the embroidery machine's mechanical information when initially setting up the embroidery operating program. User can change the machine setting as well in this screen.

Press  icon in [Fig 7.1] and the screen [Fig 7.2] will follow up next.



[Fig 7.1]



[Fig 7.2]

7.1 Machine information

It shows Model, Quantity of Heads & Needle Bars, X,Y Space, Trim Type, Jump Type, Hook Type, Presser Feet, Max RPM, Trim RPM, Holding Type, Wheel Type, IP Address, System version date, OP Board, IO Board, Lock Day and so on. Machine parameter setting is on “Machine setting” in [Fig 7.2]

[Warning]

When the machine setting is wrong, it may cause problem to the machine. Unless there is clear information, please refrain from changing the default setting.

7.2 Machine Test

This function is to test whether the embroidery machine is properly operating by part. If you press  icon from the [Fig 7.1], the screen [Fig 7.3] will appear.



[Fig 7.3]

Jump	Checks the operation of the jump motor or solenoid.
Wiper	Checks the operation of the wiper solenoid.
Picker	Checks the operation of the picker solenoid.
Trim	Checks the operation of the trimming motor or solenoid.
Holding	Checks the operation of the holding solenoid.
Thread Sensing	Checks the operation of the upper thread sensor.
1 Turn M. Axis	Checks the fixed position after one rotation of the main axis.
M. Axis Run	The function for test run.(Test run after cleaning and oiling)
Sequin Feed	The function to test sequin feed motor.
Sequin Lift	The function to test sequin up/down lift.
Sequin Cut	The function to test sequin film(spangle) cut.
ZZ Origin	The function to set up and check the origin of zigzag device.
PF Up down	The function to test presser foot motor.

7.3 Machine Service

This is a function that helps you to reset the settings correctly with checking wrong machine settings. If you press  icon from the [Fig 7.1], [Fig 7.4]screen will appear.

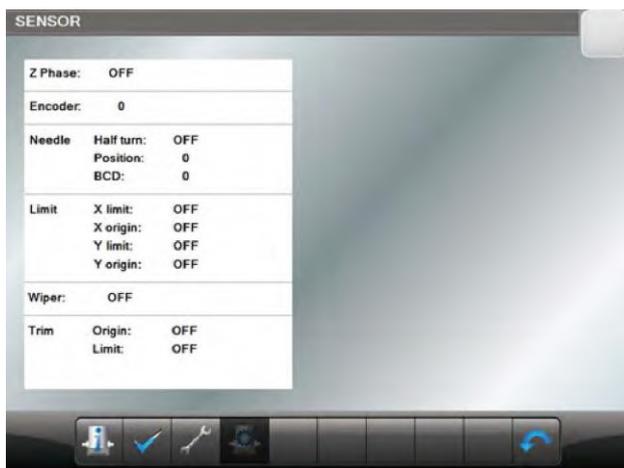


[Fig 7.4]

7.4 Sensor

This function is to show the information of the embroidery machine sensors.

If you press  icon from the [Fig 7.1], then the screen [Fig 7.5] will appear.

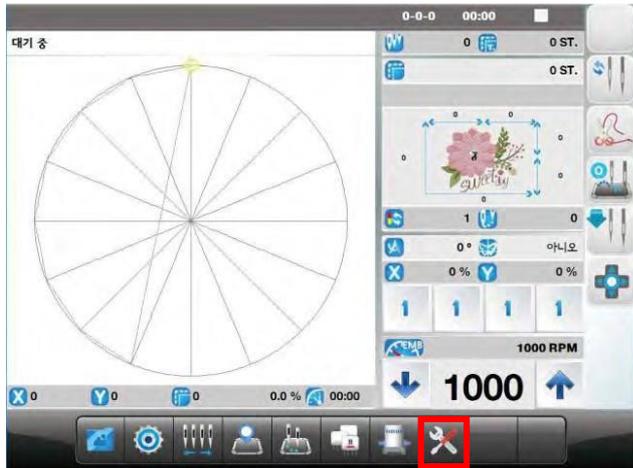


[Fig 7.5]

- 1) Z Phase : It shows the status of the embroidery Z axis fixed position sensor.
- 2) Encoder : It shows the current position value of the Z signal with numbers.
- 3) Needle Bar Position Sensor : It shows the needle bar position, and the status of half turn sensor.
- 4) X, Y Limit Setting : It shows the ON/OFF status of the XY limit sensors.
- 5) Wiper Signal Setting : It shows the status of upper thread wiper sensor.

8. Time & Language

This is a setup menu for preparation before actual embroidery. This is the menu for Language & Time setting, setting initialization, initializing work information, initializing design 1&2, re-entry of Lock key.



[Fig 8.1]

8.1 Language

User can choose Korean, English, and Chinese.

※ Other languages will be added in upgraded version in the future.

If you  icon from the [Fig 8.1], then the screen[Fig 8.2] will appear.

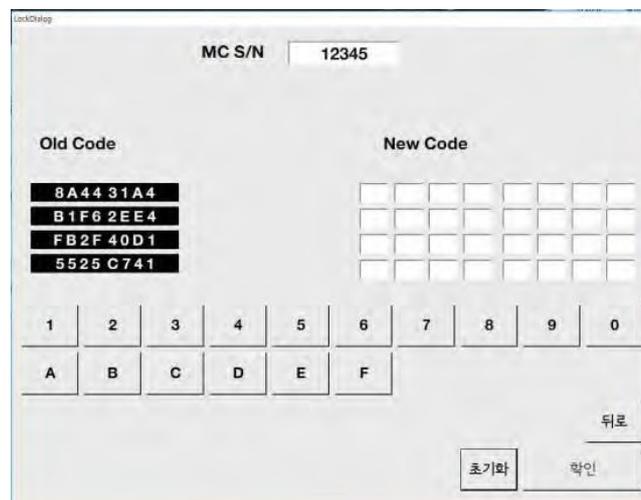


[Fig 8.2]

8.2 Lock Setting

The embroidery machine operating program has the lock function. When the lock function is set, the operating program can be used without problem for the set period of time. But when the set time frame passes, the operating program will be unable to use and user needs to extend the period or unlock to use the machine.

If the lock function is enable, press  icon in [Fig 8.2], then the screen [Fig8.3] will show up. Operating program can be used without problem for the remaining period(days) in [Fig 8.1] but when the set time frame passes, the operating program is unable to use. So, it is required to receive new key from the sales agent or distributor and enter it to the system.



[Fig 8.3]

[Caution]

There are two types of a lock key: limited and unlimited use. For more inquiries on the lock key, contact the distributor's shop.

8.3 IP Setting

To set IP address, press  icon in [Fig 8.2]. The screen [Fig 8.4] will show up. Enter the value for each item using the keypad buttons below and press OK to complete the setting.



[Fig 8.4]

8.4 Date and Time & Volume Setting

To change time or date displayed at the right top of the screen, press  in the screen [Fig8.2]. The screen [Fig8.5] will show up. Enter the value for each item using the keypad buttons below and press OK to complete the setting.



[Fig 8.5]

[Note]

If the lock is set up, it is unable to set and change the date and time.

8.5 Initialization(Memory Initial)

Setting initialization, initializing work information, initializing design 1 & 2.

Press  icon in [Fig 8.2], and then the screen [Fig 8.6] will show up

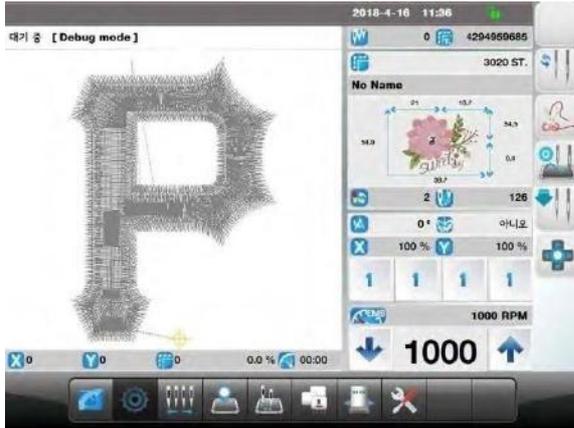


[Fig 8.6]

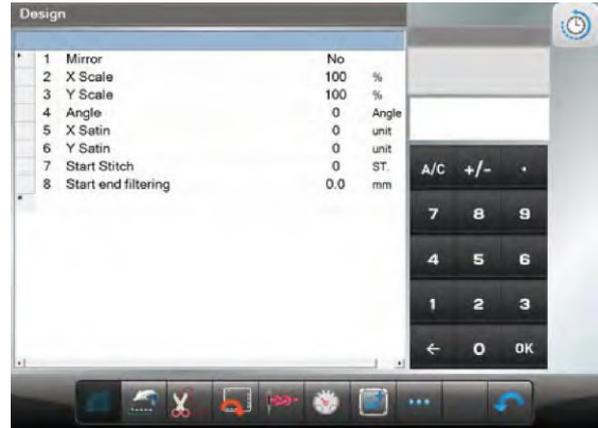
9. Setting



On the setting menu, overall setups regarding embroidery can be made. There are 8 sub-menus under the setting menu, which include design, back stitch, trim, jump, back-tack, speed, frame and other setting.



[Fig 9.1]



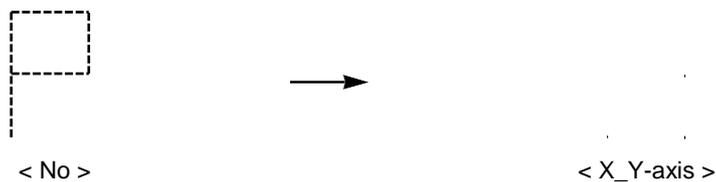
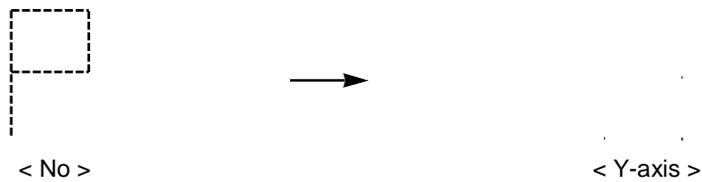
[Fig 9.2]

9.1 Setting

Press  icon in [Fig 9.1], and select  icon. It shows 8 categories of design setting in [Fig 9.2]

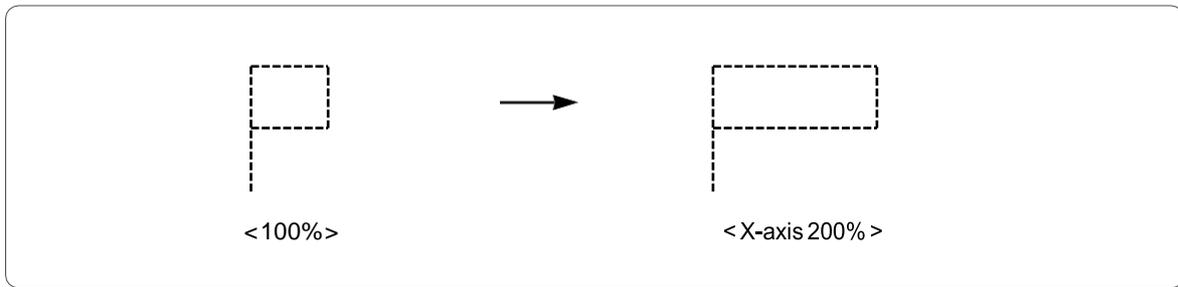
(1) Mirror

Reverses a design based on X, Y, or X+Y axes.



(2) X Scale

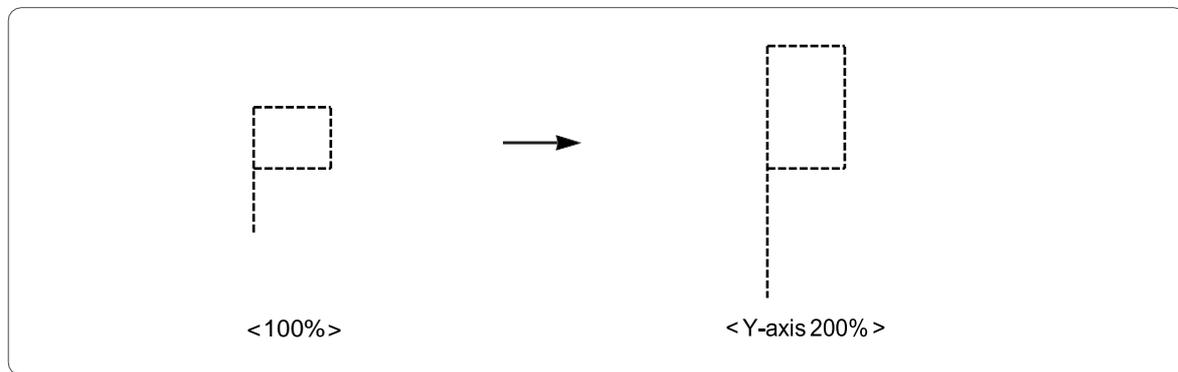
Enlarges or reduces a design in the X-axis direction.



The default is 100%, and the value can be adjusted from 50% to 200% by the unit of 1%.

(3) Y Scale

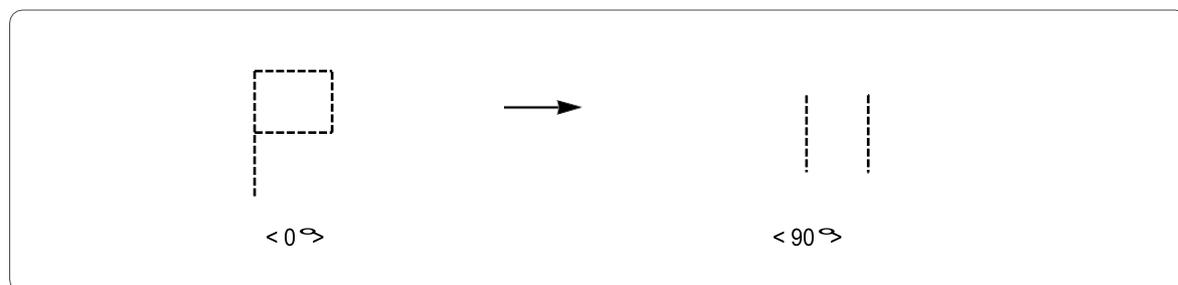
Enlarges or reduces a design in the Y-axis direction.



The default is 100%, and the value can be adjusted from 50% to 200% by the unit of 1%.

(4) Angle

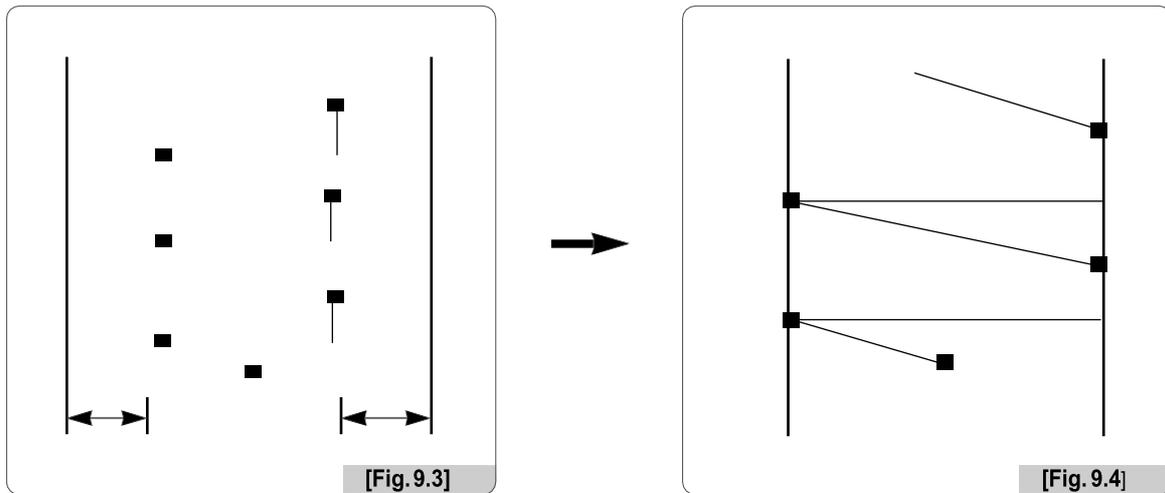
Turns around the embroidery design according to the rotation angle value set.



The default is 0°, and the value can be adjusted from 0° to 359° by the unit of 1°.

(5) X Satin

In case where the embroidery design is a satin stitch, this function can set the satin width.



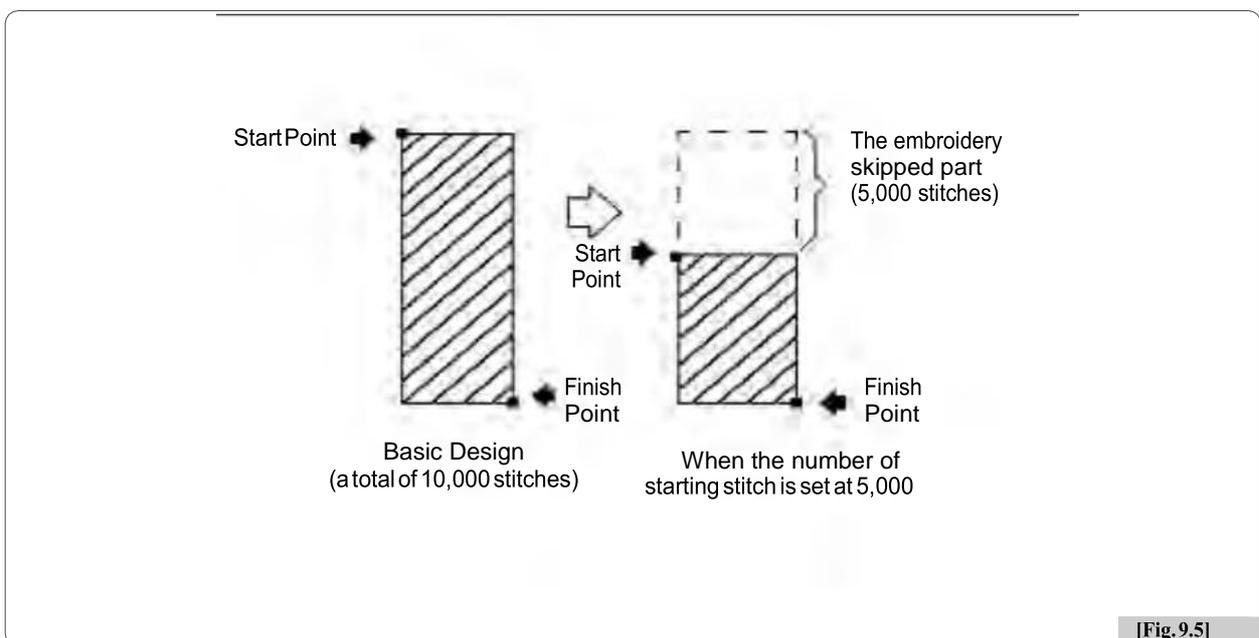
This function determines the satin stitch length in the X-axis direction. The value of relative size to default can be Increased or decreased in range from -5 to 5.

(6) Y Satin : This function sets the Y-axis satin width.

(7) Start Stitch

This function sets the starting stitch number for the embroidery design to be worked. It enables skipping as many as stitches desired for embroidery work.

For instance, there is a design with a total of 10,000 stitches below. The design on the left side has entire stitches embroidered. On the right side, the design has only 5,000 stitches since the starting stitch number was set at 5,000.



(8) Design Filtering

If the distance from one stitch to the other stitch is too short (0.1 ~ 0.5mm), the thread might break very often during embroidery work.

This function is to put together short stitches which are under the set value for optimization and enhance the entire number of stitches above the set value, so that it can prevent thread break.

9.2 Back stitch

(1) Auto back stitch

When thread break is sensed, this function sets the number of backward stitches.

(2) Auto start after frame back stitch

The function is to determine whether the machine is automatically started when the frame reaches “(4) Auto start before.”

(3) Work head after back stitch

The function is to decide whether the heads with broken thread are operated only or whether the needle bars of all heads are operated in case where the frame is moved backward from the machine stop point, and the embroidery work is begun with the bar switch.

(4) Auto start before

When all or multiple needle bars are simultaneously in operation and the machine is stopped due to the detection of a problem (thread break) affecting one needle bar, it is possible to conduct the back-stitching for the concerned needle bar with the problem to correct the part where stitching did not occur. After that, if all the needle bars are operated from the point which is located before the problem area, the embroidery will be overlapped on the problem area, making correction.

(5) Back stitch number

This function is to set the number of stitches to move by the one-time operation of the stop switch when the frame is moved backward with the stop switch.

9.3 Trimming



(1) Auto trim

This function is to enable the automatic trimming function

(2) Auto start after trim

The function sets up whether embroidery automatically begins after jump code and trimming or trimming by suspension code.

(3) Jump stitch to create trim

This function is to move the frame after trimming, in the case where repeat jumps take place and they occur more than the set value. For instance, let's assume that the set value is 5. Then, the machine conducts jump stitches without trimming until 4 stitches. If the repeat jump with over 5 stitches is found, conduct trimming first and move 5 stitches back and start embroidery again. The default is 3 stitches and the value can be adjusted from 0 to 10 by the unit of 1 stitch.

(4) Trim by continues jump length

If the total stitch length of the repeat jump code is above the set value, trimming is primarily performed before carrying out the next work. This function can set the maximum jump stitch length.

(5) Trim picker off angle

This function is to set the trim picker use after off angle offset.
length of the remaining upper thread at the needle when automatic trimming is conducted.

(6) Trim knife start angle offset

This function is to set trim knife start angle offset when auto trimming.

(7) Trim knife return angle offset

This function is to set trim knife return start angle offset when auto trimming.

(8) Auto wiper

This function is to set wiper using selection when auto trimming.

(9) Frame moving after trim

This is to shake the frame left/right or back/forward to separate the thread from embroidery materials after trimming.

(10) Inching stitch after trimming

This function is to set the number of stitches to be made during slow start operation after trimming.

(11) Start Picker Off turn and Angle

This function is to set up the start picker off turn and angle when trim after inching.
Ex) "2105" means, second time falling needle & 105 degree pulling out picker.

(12) Auto Color Change

This function is to enable the automatic color change function according to the needle bar change setting procedure.

(13) Wiper Start Angle

This function is to set up the start angle of wiper when trimming.

- Increase Angle : Late the wiper start angle.
- Decrease Angle : Faster the wiper start angle

[Note]

For SV-Series, the wiper motpr specification is 50[Hz]. Therefore, during the initial installation, it is recommended that the wiper start angle is adjusted to match the voltage specification of the initiallation area.

(14) Trim start, upper thread holding mode

This function is to set select upper thread holding use mode

- A : Open upper thread holding when first needle goes down.
- B : Open -> Close -> Open, upper thread holding when first needle goes down.
- C : Open upper thread holding when second needle goes down.
- D : Open -> Close -> Open, upper thread holding when second needle goes down.

9.4 Jump

(1) Jump stitch to create trim

This function is to move the frame after trimming, in the case where repeat jumps take place and they occur more than the set value.

For instance, let's assume that the set value is 5. Then, the machine conducts jump stitches without trimming until 4 stitches. If the repeat jump with over 5 stitches is found, conduct trimming first and move 5 stitches back and start embroidery again. The default is 3 stitches and the value can be adjusted from 0 to 10 by the unit of 1 stitch.

(2) Trim by continues jump length

If the total stitch length of the repeat jump code is above the set value, trimming is primarily performed before carrying out the next work. This function can set the maximum jump stitch length

(3) Jump change data

This function sets the needle width to change the regular code to the jump code.

(4) Jump RPM

This function sets the range of the jump stitch speed, which is characterized by frame move without sewing.

9.5 Backtack

(1) Backtack

Decide whether to perform the backtack(thread loosening prevention) function for forming stitch when starting the embroidery.

(2) Backtack length

This function is to set the backtack length.

9.6 Speed

(1) Max RPM

This function sets the maximum embroidery speed.

(2) EMB. RPM

This function sets the embroidery speed.

(3) Min. RPM

This function sets the minimum embroidery speed.

(4) Jump RPM

This function sets the range of the jump stitch speed, which is characterized by frame move without sewing.

(5) Inching RPM

This function sets the starting speed for embroidery work.

(6) Slow area RPM

This function sets the embroidery speed during slow operation.

(7) Sped accelation

This function is to set the time taken for the machine to reach the embroidery speed after the machine started operating at the inching speed.

(8) Speed data

When the stitch value becomes higher than the set value, the embroidery speed is slowed down. It sets the width of a stitch.

9.7 Frame

(1) Applique

This function is used to set up the needle bar. If the needle bar is repeatedly entered for needle bar setting, and applique is “Stop or Trim+Stop”, the machine automatically stops without trimming when the needle bars overlap.

(2) Start point return

This function makes the frame return to the origin after embroidery work is completed.

(3) Frame limit check

This function is to set whether to use the virtual frame limit setting function.

(4) Frame speed

This is to set the frame move speed during frame feeding, such as automatic return to origin and offset move.

(5) Power on auto origin

This function is to message pop-up, find the origin after the power is on.

(6) X Frame start angle

This function sets the rotation angle of the main shaft when the frame starts move.

(7) Y Frame start angle

This function sets the rotation angle of the main shaft when the frame starts move.

(8) Offset move

This function determines whether to use the automatically designated off-set function or not.

(9) Needle bottom stop

This function is to enable the needle bat to stop at the lowest point when the embroidery work is completed.

(10)Default outline of gauge

This function is set to create gauge line default gap distance.

9.8 Others **(1) Thread type**

This function is to select appropriate threads by conditions.

(2) Material type

This function is to select appropriate fabrics by conditions.

(3) Upper thread sensing count

If the sensor detects the repeat breaks of the upper thread at the set length, the machine will stop its operation.

(4) Inching stitch

When starting embroidery, the machine starts operation at the inching speed. This function is to set the number of stitches to be made during inching operation.

(5)Auto head

When the set to auto move head interval.

(6)Laser pointer

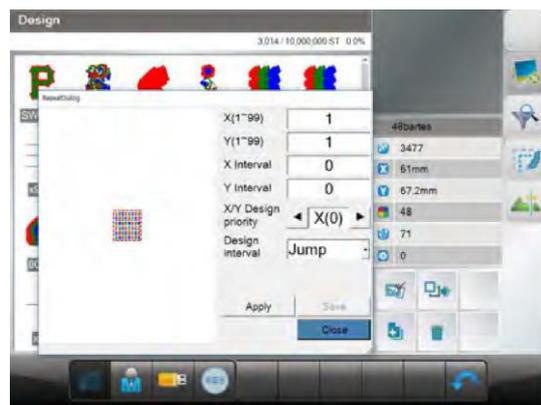
When the set to using laser pointer or not.

10. Repeat

This function is to embroider a single or various designs within one frame repeatedly at the same time. It can embroider a single design called repeatedly up to 99 times horizontally and vertically.



[Fig 10.1]



[Fig 10.2]

10.1 Design Repeat

Press  icon in the screen [Fig10.1], then the screen [Fig 10.2] will appear to enable repeat function.

(1) X

Sets the number of repetitions along the X axis. The range of repetition settings is from 1 to 99.

(2) Y

Sets the number of repetition along the Y axis. The range of repetition settings is from 1 to 99.

[Note]

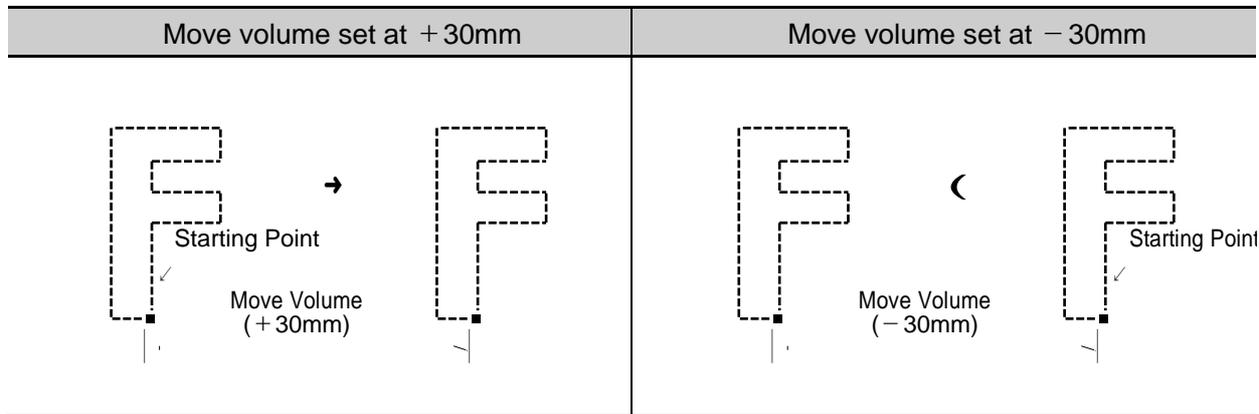
The range of repetition setting [(X repetition frequency)×(Y repetition frequency)] shall be smaller than 99.

(3) X Interval

It sets the distances between the starting points of the repeated design along the X axis. The signs of move(+ / -) determines the direction of repetition.

+ : Repeat in the right direction

- : Repeat in the left direction



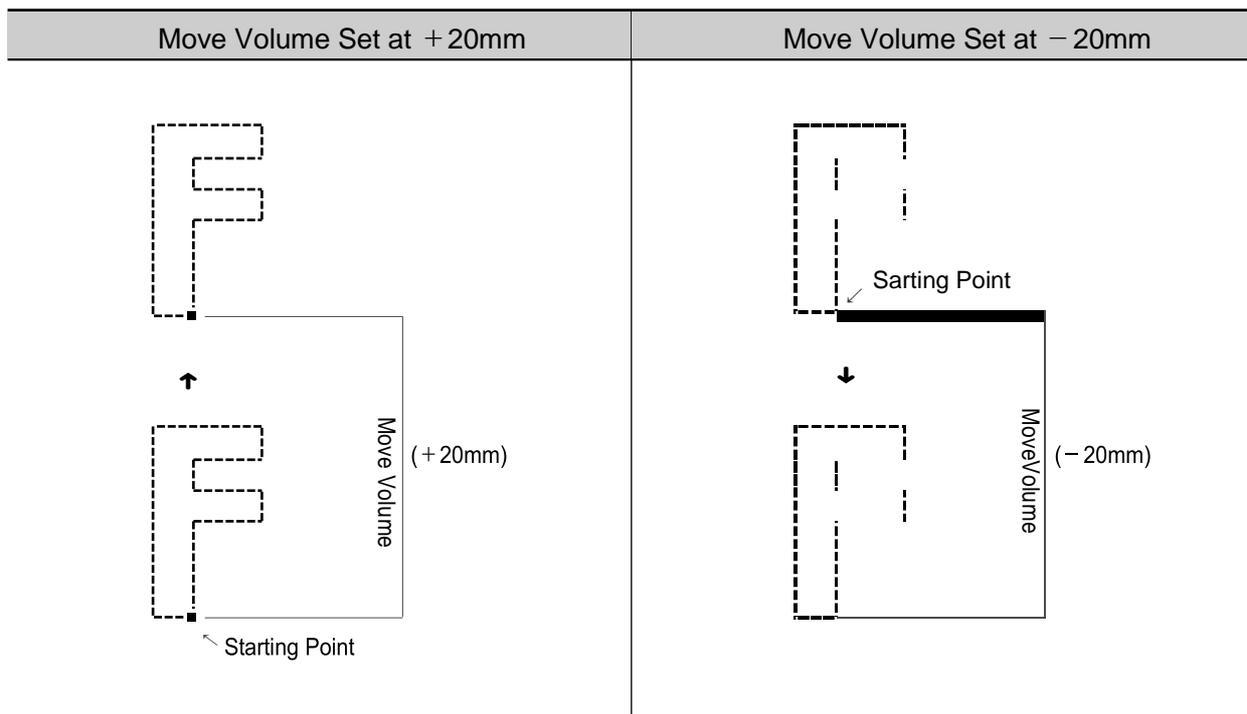
(4) Y Interval

It sets the distances between the starting points of the repeated design along the Y axis.

The signs of move(+/-) determines the direction of repetition.

+ : Repeat in the right direction

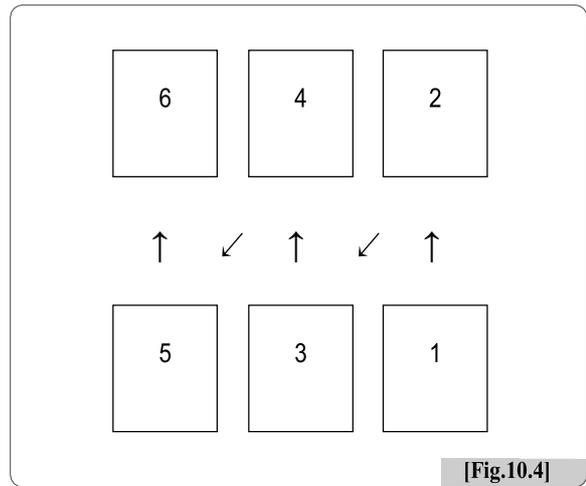
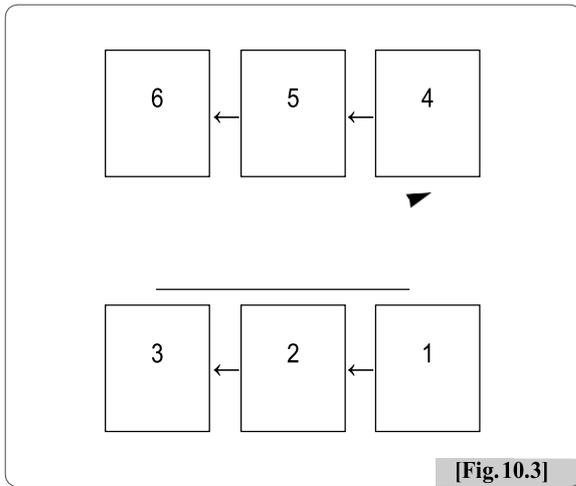
- : Repeat in the left direction



(5) X/Y Design Priority

It determines the priority in the X or Y direction. In [Fig 10.3], the X direction is a priority.

In [Fig 10.4], the Y direction is a priority.



(6) Design Interval

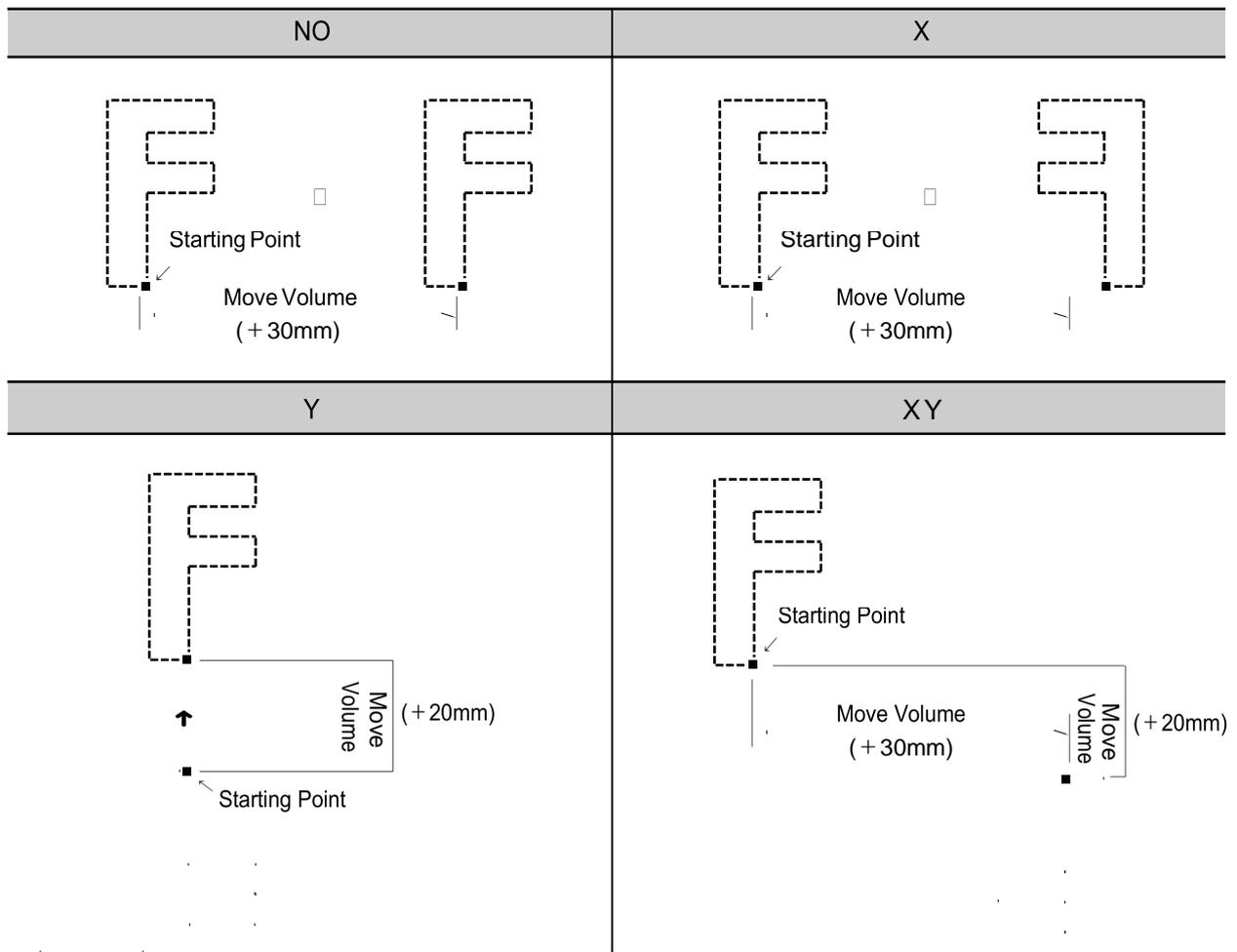
This function is to set the moving methods between repeated designs. To move a design, Stop and Jump can be used.

Stop : It moves to the position of the next design and stops.

Jump : It moves to the position of the next design and automatically begins work.

(7) Mirror

This function is to set the design to look like the one reflected on the mirror.



10.2 Design Filtering

If the distance from one stitch to the other stitch is too short (0.1-0.5mm), the thread might break very often during embroidery work. This function is to put together short stitches which are under the set value for optimization and enhance the entire number of stitches above the set value, so that it can prevent thread break. Please refer [Fig. 10.6]

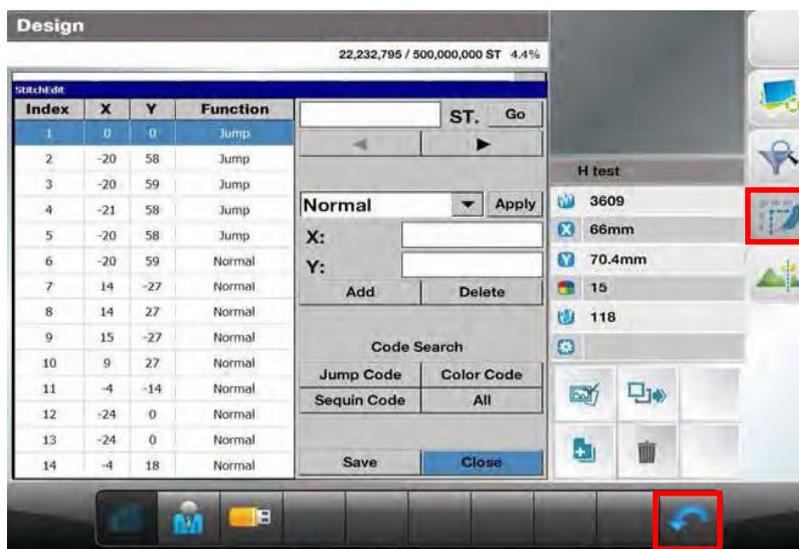


[Fig 10.6]

10.3 Stitch Edit

This function is to change codes and stitch count by needle based on the called design data.

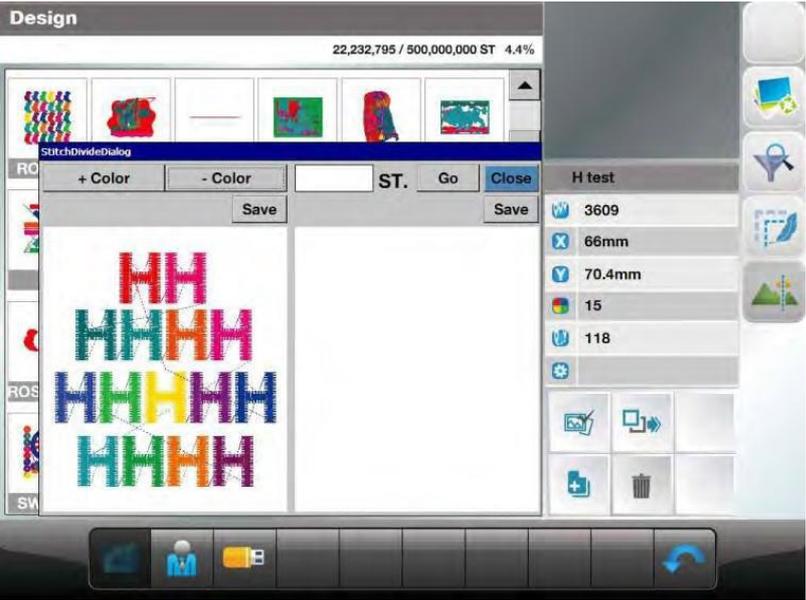
[Fig. 10.7] is the first screen for Stitch Edit.



[Fig 10.7]

10.4 Design Divide

This function is to save two different designs of the desired part of the design chosen. The designs can be divided by color or needle number.



[Fig 10.8]