刺绣机电脑

Computerized Embroidery Machine

BECS-328

(English)

Version：2008-03

操作手册

OWNER'S MANUAL

CERTIFICATE OF CONFORMITY OF QUALITY MANAGEMENT SYSTEM CERTIFICATION

This is to certify that the quality system of
Beijing Xingdahao Technology Co., Ltd.
Is in conformity with
GB/T 19001-2000 idt ISO 9001:2000 Standard

This certificate is valid to the following product(s)/service:
Design and manufacture of computerize sewing
Equipment control system

Registration No.:0203Q15748R2M

ACCREDITED BY MEMBER OF
THE IAF MIA FOR QMS

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Chapter 1 General Descriptions

Thanks for using the Computerized Embroidery Control System of Beijing Xingdahao Technology Co., Ltd. Please read this manual carefully in order to operate the machine correctly and effectively. And, you should keep well this manual for later use.

1-1 Warnings and Cautions

Notice	
 Danger	During the operation, do not try to open the machine box. The high voltage contained in some parts can be deadliness. Rotating parts may cause serious injury.
 Forbidding	Don't expose the machine to humidity gas, poisonous gas, water, and dust.
 Forbidding	Don't restore or operate in vibration, which may cause trouble to the machine.
 Notice	Please abide all the warnings and safety requirements to save life.
 Notice	LCD belongs to fragile goods. Do not use hard materials to click on the screen.
 Notice	Before plugging in, please make sure if the lamp of floppy/USB disk driver is on, don't move out the floppy/USB disk..
 Notice	We will add appendix if necessary, if there is any difference between the manual and appendix, subject to the appendix.
In Transportation	
 Notice	Don't hold the cable when moving..
 Notice	Please abide all the warnings and safety requirements to save life.
 Force	Overloading may cause serious loss. Please load according to the instruction on the box..
Installation	
 Notice	Don't jam the vent on the device. Don't plug up the machine, or it may set fire.

 Notice	Make sure the installation direction is correct..
 Notice	Don't expose the machine to humidity gas, poisonous gas, water, and dust.
Cable Connection	
 Forbidding	Don't test the insulation of the circuit loop.
 Forbidding	Never try to connect overloaded electronic device on the connector..
 Notice	Make sure the insulating of the cable is fine.
 Notice	Communicating cable and power cable should be separated.
 Notice	All the cables should be well fixed. Don't put any strength on cables. Make sure the turning point of cable is well protected. Add pipes to increase insulating capability.
 Notice	Machine should be grounded. The resistance should be no larger than 10 Ω.
Operation direction	
 Danger	Don't operating the machine when there is any damage on the surface..
 Forbidding	When machine is running, do not touch any running part.
 Notice	Make sure the configuration of power supply in normal. Use stabilized voltage power supply when the voltage rebound is between -10%~10%.
 Notice	In case of warning, please check out the problem. Operation can only be carried out again when problem is solved.
 Notice	The power supply has over-currency protection function. There is a 3 mins time lag before the function can be used again.
Maintenance	
 Warning	If you need to open the machine cover, cut out the power supply first. Duo to the capacitance after power off, operator must wait one minute till he can open the machine cover.

Notice	Circuit boards can be damaged by static. Non-professional technician can not disassemble circuit boards.
Notice	If machine is inactive for a while, users must power on the machine regularly (once in 2 or 3 days, more than an hour for each time).
Notice	If machine is inactive for a long time, users should have the machine checked before power on.
Rejection	
Notice	Rejection should abey the rules and regulations set by national indudstrial electronic standards.

1-2 Main Features

1. Operation box Screen

The screen is 5.7TFT.

2. Stepping Precision

The minimum of stepping precision is 0.1 mm.

3. Stitch Range

The stitch range is 0.1 mm -- 12.7 mm.

4. Maximum of Memory Design Storage

The maximum is 200. (The maximum is 190 when the machine has been installed with letter design library.)

5. Design Storage Capacity

The system memory can store 2,000,000 stitches.

1-3 Main Functions

1. Design Input and output and software upgrade from Floppy/USB Disk

Disk includes floppy disk and USB flash disk. The floppy disk is outside of the operation box and connects by USB port.

1) Design Input from Floppy/USB Disk

The computer can read a variety of designs from floppy/USB disk, such as TAJIMA DSB, TAJIMA DST, BARUDAN FDR, BARUDAN FDRIII, BARUDAN HD and ZSK

2) Design Output to Floppy/USB Disk

The designs in computer memory can be output to floppy/USB disk. The designs are output in Tajima DSB format, which can be used in internet transmission.

3) The software of BECS-328 can be removed by floppy/USB disk.

2. English, Chinese or Spanish/Turkish/French Display

User can select software from Chinese/English/Spanish/Turkish//FrenchPortuguese , etc. After software selection, user can select display language by keyboard operation. And the operation keys use logo to avoid language limit.

3. Adjusting Speed

The main shaft speed can be changed manually, or be changed automatically with the length of stitches during embroidering.

4. Trimming

The machine can trim thread by pressing keyboard manually, or do it automatically during changing color or at the end of embroidering. (Except the machine types without trimming device)

5. Thread Break Detect

During embroidering, the machine will automatically stop and light the red stamp if the thread is broken or is run out of.

6. Color-changing Function

While processing one color-changing stitch, the machine can change color manually, or change color automatically according to the preset color line.

7. Repetition Embroidery

The machine can increase embroidery productivity by repetition embroidery which may be used with cyclic embroidery. And it can do the normal repetition embroidery directly. To do partial repetition, create and embroider a new design through the option “COMPILE EMBROIDER. DESIGN” in the assistant management menu.

8. Cyclic Embroidering

The machine also can increase embroidery productivity by preset cyclic embroidering, by which the machine automatically starts another same embroidery when one embroidery is finished.

9. Combining Designs

A new design can be formed created by combining several normal designs with different size ratio, rotation angle, design direction and relative distance, which is called combined design and has an extension name of PAR. It can be embroidered at one time.

10. Compiling Design

A. Compiling the ready-for-embroider design

After selecting a normal design and presetting the parameters (such as size ration, rotation angle, figure direction, repetition), the computer can compile the ready-for-embroider design to a new normal design.

B. Compiling the combined design

Also, one combined design can be compiled to a new normal design.

11. Editing the Normal Design

A normal design can be edit stitch by stitch (or by several amounts of continuous stitches) in full screen.

12. Patching Embroidering

This function can set a patch code after the color code or stop code, and when the machine embroiders the patch code, it will halt and move frame out for patching (sticking cloth). After sticking cloth, user would pull the operation bar to let the frame move back and continue embroidering.

13. Adjusting the Brake

For various machines, this function can make the machines stop correctly, which means that the main shaft stops at 100 degree.

14. Save and store the origin point of design

This function can save and store the start embroidering point of each pattern, instead of repeating moving frame manually to find the design origin when selecting the same pattern.

15. Embroider the boundary of a design, the "+", and some locating lines

Embroider the boundary of the current design to locate conveniently.

Embroider the "+" at current position to locate conveniently.

Embroider some locating lines is to embroider a line or some lines to locate conveniently.

16. Mechanical maintaining and testing

This function is to easily judge the malfunctions when maintaining and testing, which consists of computer testing, encoder testing, main shaft speed testing, machine parts testing and the main shaft stops at any position, etc.

17. Save and store the embroidery parameters

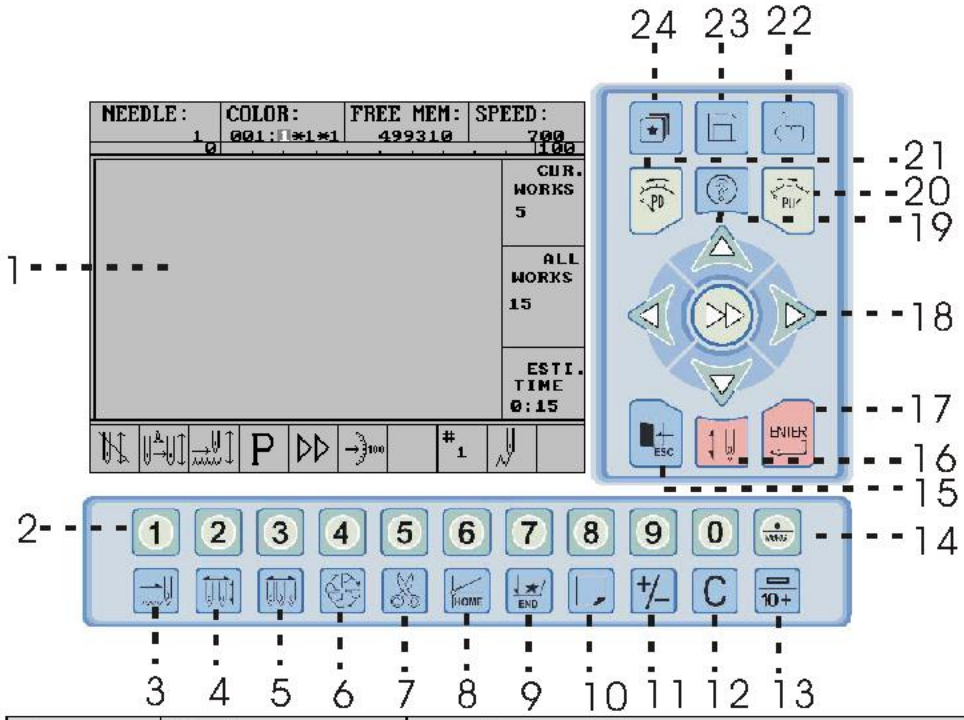
This function is to combine the pattern with selected embroidery parameters such as color

sequence, pattern direction, rotation angle and repetition, etc. to reduce the times of inputting parameters when embroider the pattern without changing the parameters.

Chapter 2 Names of Parts about Electrical Control System

2-1 Operation Control Panel

Follow is the machine's operation box:



No.	Display	Name
1	LCD Screen	This display operation information
2	Number key	This is used for selecting menu or setting parameters.
3	Embroider state switching key	Press the key to make the machine's status switch among high and low speed idling and embroider.
4	Color-changing and start mode	Press this key can change color-changing and start mode
5	Manual color-changing	When the machine stops and the main shaft reaches the set position, press it to enter the manual color-changing screen and then press the corresponding needle number to change color.
6	Design direction	Press the key to make design direction change
7	Manual trimming	After machine stops, click it to do manual trimming.
8	Return to origin	With this function, the frame can return back to the

No.	Display	Name
	point	position before manual frame shifting. When machine stops halfway or embroidering finished, the frame can return back to the starting point of pattern with this function.
9	Returning to the embroider-Stop Point	After halting in the halfway of embroidering operation, press the manual frame-shifting key to shift the frame out (for patching cloth). After the completion of patching cloth, this function can make the frame return to the stop-embroidery point.
10	Embroider Parameters	Press this key, then will display part parameters。
11	Number sign	Change number sign when you input number.
12	Delete	Press the key to clear inputting or embroider register.
13	Blank or adding 10	Press the key to add blank or add 10 to number.
14	Turn Shaft Button	To press the button to make the main shaft rotate one cycle and stop at 100°.
15	Exit	Press the key to exit correspond to operation..
16	confirm Embroider	Press the key to confirm embroider or cancel embroider.
17	enter	Press the key to confirm correspond to operation.
18	Manual Frame Moving	The direction of frame moving is the same as the direction key. The combination of directions is supported. Press central key to switch the frame-moving speed between high and low .
19	help	Press the key to display help.
20，21	Speed-adjust	Press  to reduce speed and  rise.
22	Assistant	Press the key to enter assistant management.
23	Disk(USB)	Press it to enter the disk(USB) management, which

No.	Display	Name
	Management	includes operations of floppy disk and USB disk.
24	Memory Design Management	Press it to enter the memory design management screen, which includes "select design", "disk input", displaying designs and creating new designs.

2-2 Operation Bar and Turn Shaft Button

1. Operation bar (embroidery bar under the table)

Stop status: pull the bar to right to begin embroidery (including idle running in high or low speed) and pull the bar to left to return (including idle running in high or low speed)

Running status: pull the bar to right to the end to embroider slowly and release to normal speed and pull the bar to left to stop embroidery.

2. Turn Shaft Button(over the operation bar case, on the right under the table)

To press the button to make the main shaft rotate one cycle and stop at 100°.

2-3 Darning Switch

1. Thread Break Detecting Device of 3 place

There is a switch on every head of machine. When the switch is up, this head is in normal embroidering mode and when it is in the middle, this head is in darning mode and when it is down this head is in stop mode.

2. Thread Break Detecting Device of 2 place

On every head of the machine, there is a darning switch, and it can be move with hand to the up, middle or down position, but it is stop only at the middle or down position. When the switch is pushed to up position, it can not stay at up position, and the lamp is red, which hints that this head is in darning mode. In addition, while thread breaking during embroidering, the lamp is automatically changed into red and this head is in darning mode. When the switch is at middle position, this head is in darning mode if the lamp is red, or this head is in normal embroidering mode if the lamp is green. When the switch is pushed to down position, the lamp is off, which hints that this head is in stop mode. When the switch is pushed to middle position from down position, the lamp will be green and the head is in normal embroidering mode.

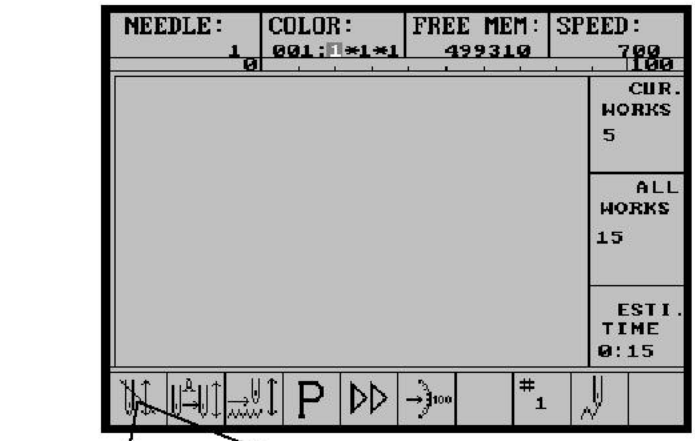
Chapter 3 How to Start Embroidery

3-1 Summary

3-1-1 System's Working Statuses

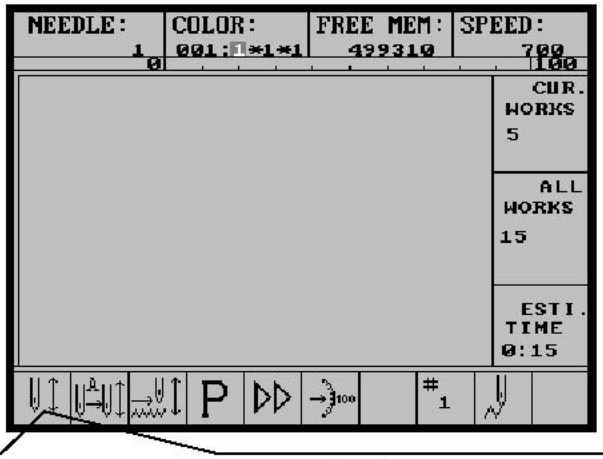
The working statuses of computer embroidery machine can be divided into 3 statuses:

1. Preparation status:



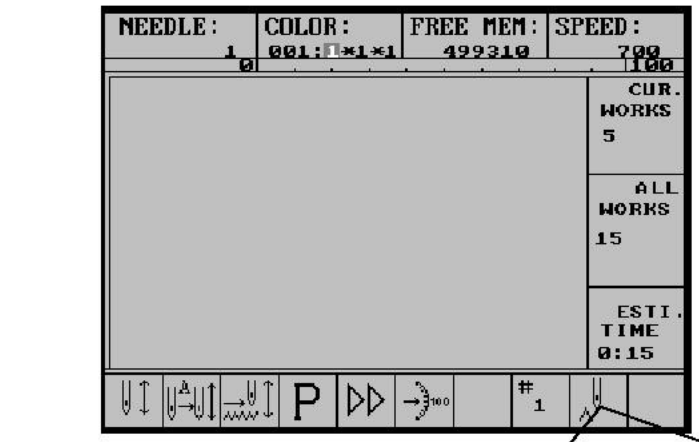
features: machine stops and the icon "[ ]" blinks.

2. Embroidery confirmation status:



features: machine stops, and the icon "[ ]" appears.

3. Embroidery running status



Features: machine is running, and the icons "[ ]" do animation show.

How to switch among the above work statuses?

1. In preparation status, after selecting pre-embroidery design and setting the parameters, first press "[ ]" key, and then press "[ ]" key, now the machine is in embroidery confirmation status. Finally, pull the embroidery bar to right to embroider, which means the machine is in embroidery running status.

2. In embroidery running status, pull the bar to left to stop, now the machine is in embroidery confirmation status (Again, pull the bar to right, the machine goes into embroidery running status).

3. In embroidery confirmation status, first press "[ ]" key, and then press "[ ]" key to release embroidery confirmation status, now the machine goes into preparation status.

3-1-2 The Icons at the Bottom of LCD Show the Embroidery Information

At the bottom of LCD on main picture, there are 10 icons to show embroidery information, which meanings are as following:

1. [ ] : The machine is in embroidery confirmation status.

   [ ]: The machine is in preparation status.

2. [ ]: The machine is in auto-color and auto-start mode.

   [ ]: The machine is in auto-color and manual-start mode.

 : The machine is in manual-color mode.

3.  : The machine is in normal embroidery status.

 : The machine is in high-speed idling.

 : The machine is in low-speed idling.

4.  : These 8 icons display embroidery direction of design.

5.  : Manual frame-shifting is in high-speed.

 : Manual frame-shifting is in low-speed.

6.  : The machine stops correctly (the main shaft is at 100 degree).

 : The machine stops wrong.

 : The machine is embroidering the jump stitch.

7.  : The thread is broken.

: The machine finishes embroidering the design.

 : The machine is changing color (which means changing needle).

8. 

: The number is the pre-embroidery design.

9.  : The machine stops.

 : The machine is running.

10.  : The machine is set cyclic embroidery.

 : The machine is not set cyclic embroidery.

3-1-3 Descriptions of Menu Item's Status

The user interface of computer has a lot of menus, which display the ways of keyboard operation. Usually, one number will be displayed at the front of menu item, which is the serial number of the menu item. If the number is replaced by "⊗", the menu item can not be entered. (The parameter cannot be set or is not functional in the current setting.) If a menu item has a

"⊶" before it, a password is needed to enter it.

3-1-4 How to Embroider for the First Time?

The machine embroiders according to the design in store. Before a new machine is used normally for the first time, the computer should initialize the parameters (See Chapter 12). Then, all patterns in memory should be cleared (See Chapter 13), Again, input the desired pattern to memory store (See Section 3-2). After that, you can select a pattern in memory and confirm to embroider pattern (See Section 3-4). Now, the machine goes into embroidery confirm status. Finally, pull the embroidery bar to right to start embroidering the pattern.

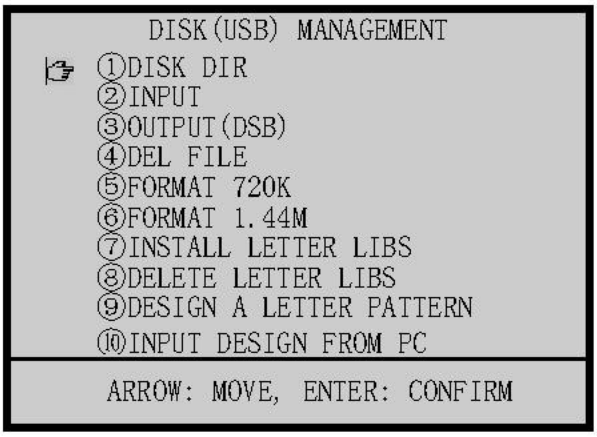
3-2 Input a Design into Memory from Floppy Disk

Reading pattern into memory from floppy/USB disk can be performed both in the operations of "Disk(USB) Management" and "Design Management".

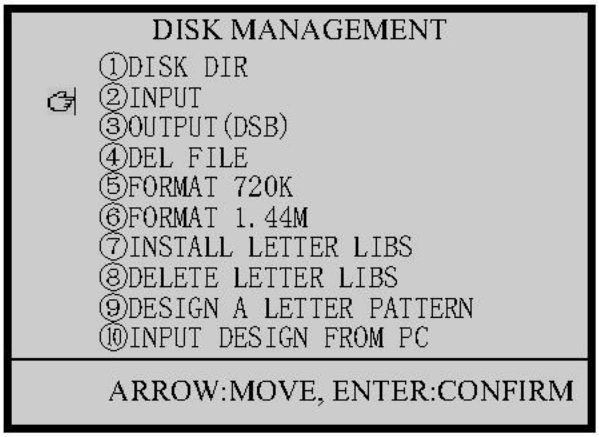
Disk design is input using USB disk by USB port or using floppy disk by USB port. The floppy disk is chose station. The system has one USB port, so it can be connected one floppy disk or one USB disk. You can insert or draw floppy/USB disk directly.

Operation 1: (by the operation of "Disk(USB) Management")

1.Press "[floppy]" key (in embroidery preparation status), the computer shows as follows:



2.Press "⇧", "⇩" or numeric key "2" to move the cursor to "INPUT", and then press "↵" key.



3.The LCD will display the file name in floppy/USB disk, then go on according to the prompt.

4.Select a disk pattern and press "↵" key.

5.There will display the minimum design number in memory which is available (suggest you to use), if you agree, then confirm by pressing "↵" key, then begin reading. If not, then press numeric keys to input the selected design number, if the number you input conflicts with the number in memory, then you should input a new number and press "↵" key to confirm.

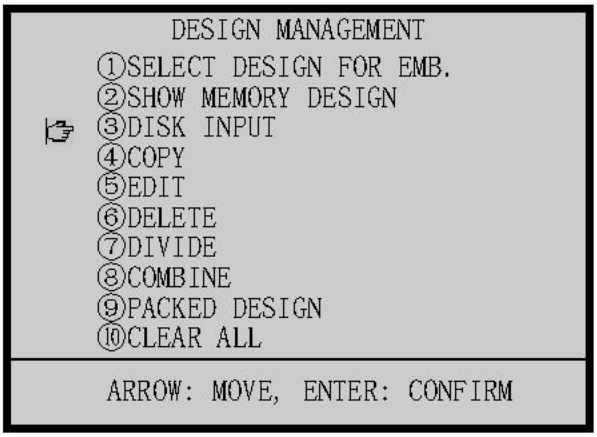
6.There will be promotion: "To expand satin?", press "⇩" key to select "YES" or "NO", and press "↵" key to confirm.

7.If you select "YES", you must input the expanded value of X and Y for all of satin stitches of design.

8.Then the pattern file begins to be transmitted from disk to machine memory, and the operation finishes.

Operation 2: (by the operation of "Design Management")

1.Press "☆" key (in embroidery preparation status), the computer shows as follows:



2.Press "⇧", "⇩" or numeric key "3" to move the cursor to "DISK INPUT", and then press "↵" key.

3.The LCD will display the file name in floppy/USB disk, then go on according to the prompt.

4.Select a disk pattern and press "↵" key.

5.It will display the minimum design number in memory which is available (suggest you to use), if you agree, then confirm by pressing "↵" key, then begin reading. If not, press numeric keys to input the selected design number, if the number you input conflicts with the number in memory, then you should input a new number and press "↵" key to confirm.

6.There will be promotion: "To expand satin?" press "⇩" key to select "YES" or "NO", and press "↵" key to confirm.

7.If you select "YES", you must input the expanded value of X and Y for all of satin stitches of design.

8.Then the pattern file begins to be transmitted from disk to machine memory, and the operation finishes.

3-3 Preparation before Embroidering

Setting the contents below should be finished or confirmed before embroidering in embroidery preparation status. Such as: (1) automatic color-changing or manual color-changing, which is to change color automatically when there is color-changing code during embroidering or to change color manually after machine stops. (2) automatic start or manual start, which is to start automatically or manually after automatic color-changing, and if it is automatic color-changing, the color line should be set. (3) besides, it is necessary to set

figure direction(see Chapter 6), the rotation angle of figure, size ratio and number of repeating embroidery.(see Chapter 12).

3-4 Select a Pattern for Embroidery and Confirm to Embroider the Pattern

1. Descriptions of Saving and Restoring Pattern's Origin Point

(1). The meaning of saving and restoring pattern's origin point

That means save the origin point of a pattern so that leave you away from repositioning when embroidering the same patterns (there may be other pattern to embroider among them).

(2) The precondition of saving and restoring pattern's origin point

The function can be realized until the machine's zero point (or frame zero point) is set and is available (the setting method is shown in Section 12-4).

(3) The main points must be explained and noticed.

Point 1: when selecting patterns, there will be a prompt "NO ZERO POINT, CANNOT SAVE ORIGIN" if you have not set the machine's zero point, then, please set, and the function can be realized (see section 12-4 to know how to set the machine's zero point.)

Point 2: when selecting patterns, if there is a "*" behind the design number (that means the pattern has been saved), and if the current position is not accordant with the position been saved, then there will be a prompt: "PRESS [HOME] TO RESTORE ORIGIN", and the pattern's origin point can be recovered. There isn't the prompt in other case.

Point 3: we suggest you do as the following sequence if you use the function of saving and restoring the pattern's origin point: first, select one pattern, then, move the frame to find the pattern's origin point, and at last, confirm to embroider, save and store the pattern's origin point according to the prompt.

Point 4: the pattern's origin point that has been found by moving the frame after embroidering confirmation will not be saved and stored.

Point 5: If the pattern's origin point has been saved and stored, it can be helpful to the power resume function. When power off and the frame has been moved, and when the pattern's origin point is available (if not available, set the machine's zero point again and ensure that it is same as before), release embroidery confirmation status and select the same pattern and recover the pattern's origin point, then confirm to embroider, and do high-speed idling to the stop point, finally continue embroidering.

2. Explanations about saving and storing embroidery parameters.

When confirming to embroider a pattern, the machine can save and store the design parameters for later use. The parameters are: design direction, angle of rotation, X scale, Y scale, priority mode, repetition mode, repetition times, frequency of X repetition, frequency of Y repetition, X repetition distance, Y repetition distance and color-changing sequence (can store/recover the first 100 color numbers).

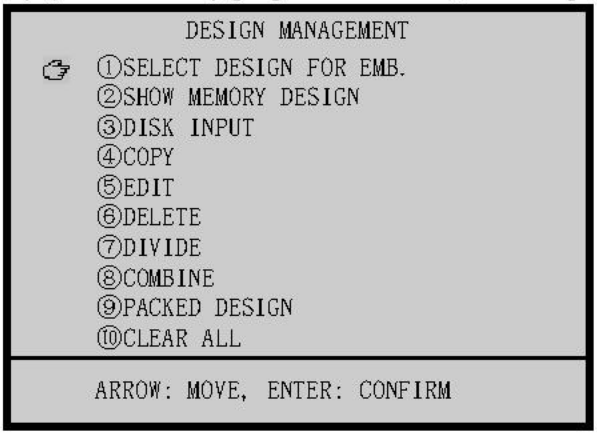
If the design parameters of a pattern have been saved (see next section), then when selecting the same pattern, it can recover the design parameters automatically.

This function is very applicable when embroidering the same pattern repetitiously without changing the design parameters, so that it can reduce the times of inputting parameters and reduce the operation mistakes.

3. Select a pattern for embroidery

Operation:

(1) Press "[key]" key (in embroidery preparation status), the computer shows as following:



(2) The cursor is at "SELECT DESIGN FOR EMB.", and press "[key]" key.

(3) LCD displays the memory designs, and automatically display the figure of design at which the cursor is. If the count of designs is more than 10 , you can use "[PD]" and "[PU]" key to turn to other pages.

(4) According to the prompt, press "[key]"、 "[key]" to move the cursor to select one design, and press "[key]" key.

(5) If the computer has saved the set parameters of this design and the current parameters are different from them, the prompt is "RESTORE PARAMETERS?", and you can select "YES" or "NO" with pressing "[key]"、 "[key]" key and pressing "[key]" key to decide whether the

computer restore the saved parameters.

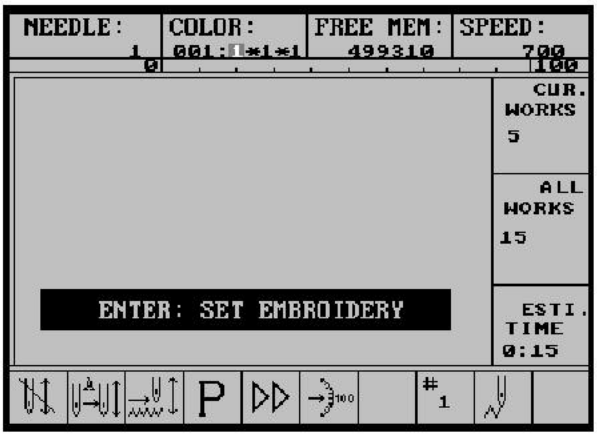
(6) Press "↵" key to select the design for embroidering, or press other key to give up this operation.

(7) After selecting the design for embroidering, the computer will prompts: "PRESS [HOME] KEY TO RESTORE ORIGIN" if the origin point of this design has saved into the computer, users can press "HOME" key to move the frame to the saved origin point, or press other keys to escape.

4. Confirm to embroider a pattern

Operation:

(1) Press "↕" key, the computer shows as following:



(2) Press "↵" key to confirm embroidery, or press other key to escape.

(3) If the design origin point is not saved or the saved origin point is not the same with the frame position, the computer will prompts: "PRESS [HOME] KEY TO SAVE ORIGIN", users can press "HOME" key to save the origin point, or press other keys to escape.

(4) If the computer has not saved the set parameters of this design or the saved parameters are different from current parameters, the prompt is "SAVE PARAMETERS?", and you can select "YES" or "NO" with pressing "↑"、"↓" key and pressing "↵" key to decide whether the computer save the current parameters.

(5) In the main picture, the icon "↕" appears and the machine enters into the embroidery confirmation status. Now, you can pull the bar to start embroidery.

3-5 Normal Embroidering, Returning and Darning Embroidering

In embroidery confirmation status (the icon "  " appears), push the darning switch of machine head that will perform normal embroidery to go to the normal embroidering mode, and push the darning switch of machine head that will not embroider go to the darning mode, and then pull the operation bar to right and release it to let the machine start normal embroidery. (When you pull the bar to right and don't release it , the machine will embroider in lower speed.) During embroidering, pull the bar to left, the machine will stop.

After the machine stops, pull the operation bar to left and the frame will return to its last position along original path. Pull the bar one time, the frame return one needle step. Pull the bar continuously and the frame will return one needle step after another continuously. After the frame return 10 needle steps continuously, the frame can return continuously even when you release the bar.(This may be different according to different machine types). When the frame return continuously, release the bar and pull the bar to the left again, the frame will stop returning.

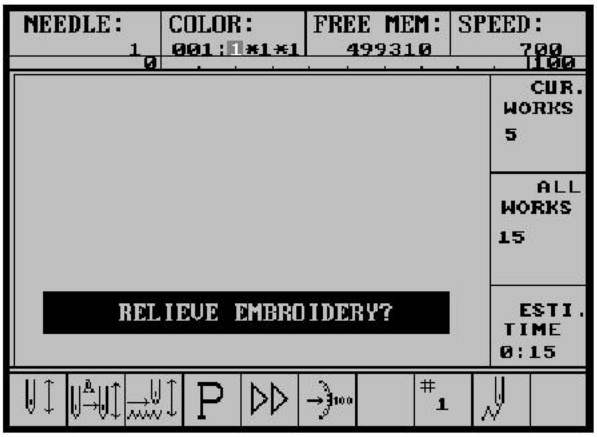
The aim of returning is usually to perform darning embroidery. After the returning stops, push the darning switch of machine head that will perform darning embroidery to go to the darning mode, and then pull the operation bar to right and the machine head will start darning embroidery while other heads don't. When the frame goes to the point where the frame begins to return, other heads whose darning switches are in normal embroidering mode will start to embroider.

3-6 Release Embroidery Confirmation Status

You should release embroidery confirmation status when you want to embroider other patterns after finishing embroidering one pattern or to revise size ratio, rotating angle, the repetition, figure direction, or to do the operation of "Disk Management" and "Design Management".

Operation:

(1) Press "  " key, the computer shows as following:



(2) Press "↵" key to release embroidery confirmation status according to the prompt (or press other keys to abandon), and then enter into the embroidery preparation status (the icon "⇅" blinks.).

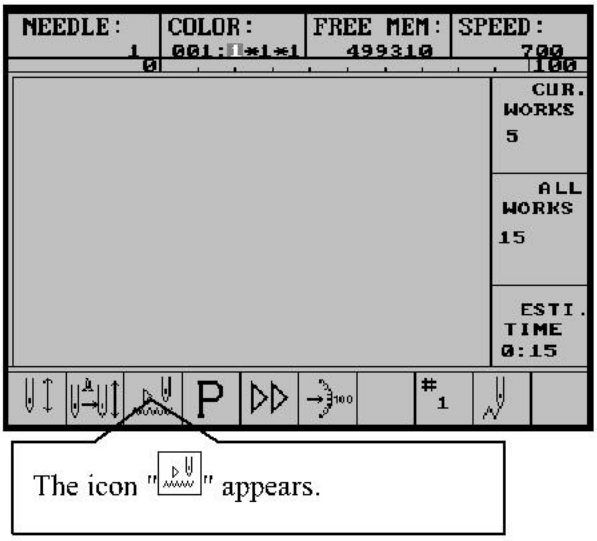
Chapter 4 Normal Embroidery and Idling

4-1 Relations between Normal Embroidery and Idling

Functions as idling, returning, etc. are intended for the convenience of darning. Low-speed idling, high-speed idling or positioning idling can be used in the light of different positions. In the states of idling, the returning also cover low-speed idling returning, high-speed idling returning and positioning idling returning.

4-2 Low-speed Idling

Operation: Press "  " key when machine stops until the following display appears:

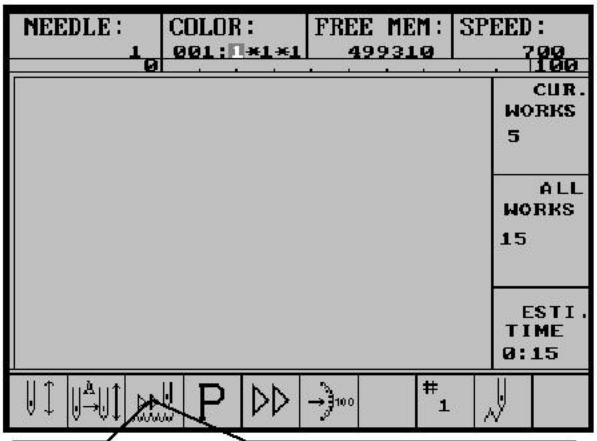


The icon "" appears.

After setting low-speed idling, the main shaft remains inactive when pulling bar for normal embroidery, but the frame runs forward along the stitch trace. When pulling bar for returning, the main shaft keeps inactive, but the frame returns along the stitch trace.

4-3 High-speed Idling

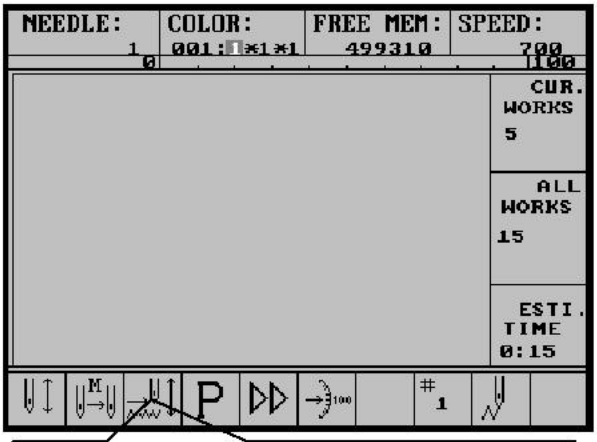
Operation: Press "  " key when machine stops until the following display appears:



After setting high-speed idling, the main shaft and frame remain inactive, the count increases based on a unit of 100 stitches. After pulling the bar for halting, the frame moves directly to the actual position of the current count. When pulling bar for returning, the main shaft and frame keep inactive, but the count decreases. After pulling the bar for halting, the frame returns directly to the actual position of the current count.

4-4 Release of Low-speed/High-speed Idling

Operation: Press "" key when machine stops until the following display appears:



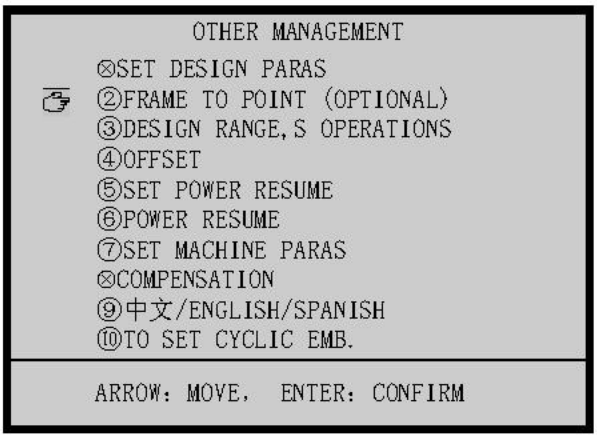
This is the state of normal embroidery.

4-5 Positioning Idling

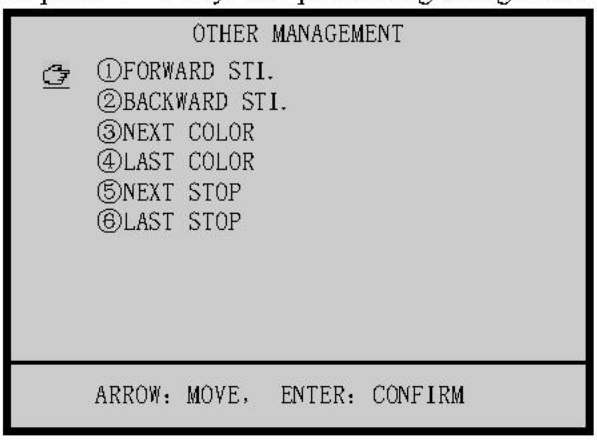
The positioning idling can make the frame directly runs forwards (or backwards) to an assigned counting position, or to a latest color-changing position, or even to a latest stop-code position.

Operation:

(1) Press "[⌂]" key (in embroidery confirm state), the menu appears as following:



(2) Press "[↑]"、"[↓]" or digital key"2" to move the cursor to "FRAME TO POINT (OPTIONAL)", and then press "[↵]" key. The positioning idling menu displays as following:



(3) Press "[↑]"、"[↓]" key to select the desired positioning idling, and then press "[↵]" key.

(4) Continue the operation for different positioning idling according to the prompts respectively.

Chapter 5 Color-changing Operation

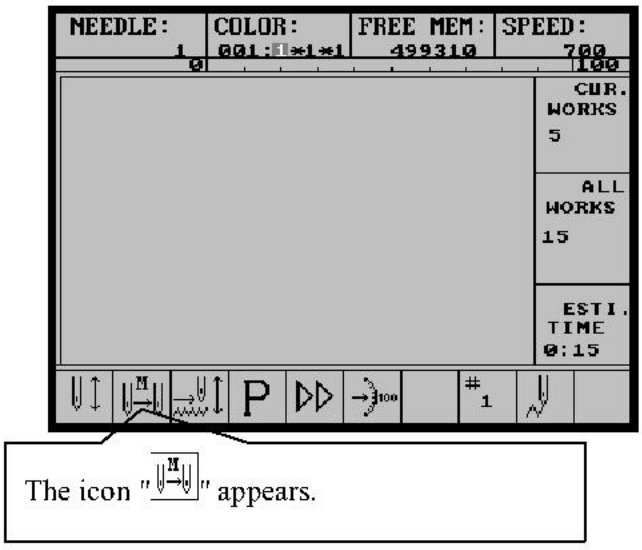
5-1 Manual Needle-change (Color-changing) when Stop

Press the numeric keys to do manual color-changing operation when the machine stops. If the needle number is more than 9, for example 10, you can press "  " and then "0" to switch to the 10th needle.

5-2 Manual Color-changing and Manual Start during Embroidering

To set manual color-changing and manual start is as follows:

Under the embroidery preparation or confirmation status, press "  " key until the main screen shows as follows.

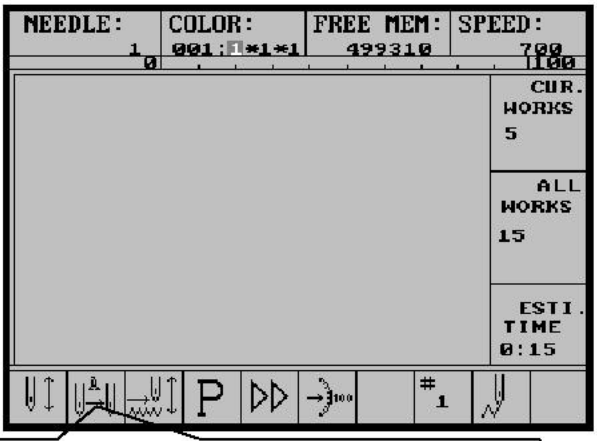


If the machine is set into manual color-changing and manual start, manually perform the color-changing and select the first needle position before starting embroidering operation, then pull bar to start embroidery.

When the color-changing code is processing during embroidering operation, the machine will halt automatically and the icon "  " appears for manual color-changing. At the moment, the operator should press the digital key to carry out manual color-changing. After the required needle position having been set, pull the operation bar to start embroidery (manual start).

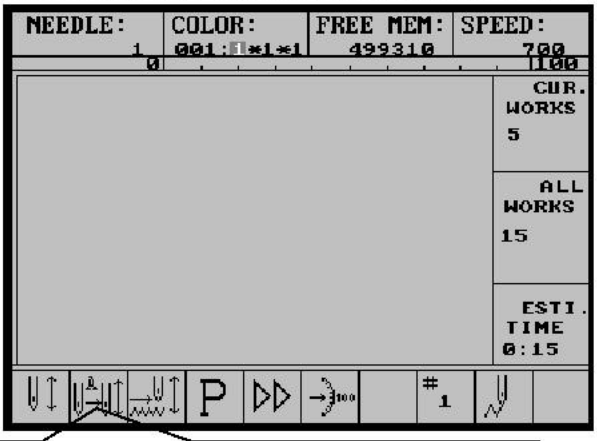
5-3 Automatic Color-changing and Manual Start (or Automatic Start) during Embroidery

To set automatic color-changing and manual start, press "  " key under the embroidery preparation or confirmation status until the main screen shows as follows.



The icon "  " appears.

To set automatic color-changing and manual start, press "  " key under the embroidery preparation or confirmation status until the main screen shows as follows.



The icon "  " appears.

If the machine is set into automatic color-changing, the color-changing sequence (or be called color line) should be set in advance before the embroidery confirmation status.

When pulling the operation bar to start embroidery, the computer will carry out

color-changing according to the needle position set in the color line (excluding the condition that the current needle position conforms to the needle position set in the color line), then start embroidering.

When the color-changing code appears during embroidering, the machine will automatically halt and change to the assigned needle position according to the needle number set in the color line. In case of setting as automatic start, the machine will automatically continue embroidering, whereas setting as manual starting, the operator must pull the operation bar to start embroidering.

When the controller has been set into automatic color-changing and automatic start, if it detected there is over-frame action borders upon color-changing in the pattern, then the over0frame and color-changing can be operated at the same time.

5-4 Setting Automatic Color-changing Sequence (or Color Line)

The automatic color-changing sequence is intended for the machine that has been set as automatic color-changing, and offers automatic color-changing sequence.

Note: the maximum times of changing color is 250.

Operation:

(1) Press "[icon]" key, and the following will be displayed:

```
① INPUT & REPEAT
② MODIFY
③ REPLACE
```

(2) if press "1" and "[icon]" key, then input color line, for example: 1,2,3,and "[icon]". All after that the color line will repeat like this: 1,2,3,1,2,3,1,2,3…

(3) If press "2" and "[icon]" key, then you can move the cursor to modify the needle selected individually. Press [enter] to end.

(4) If press "3" and "[icon]" key, then you can modify the color line in whole by switching the needle number.

For example: if the color line is :1,2,3,1,2,3,1,2,3…

Select:

```
OLD NDL: 3
NEW NDL: 5
```

Press "[↵]" key, then the new color line will change to:1,2,5,1,2,5,1,2,5…

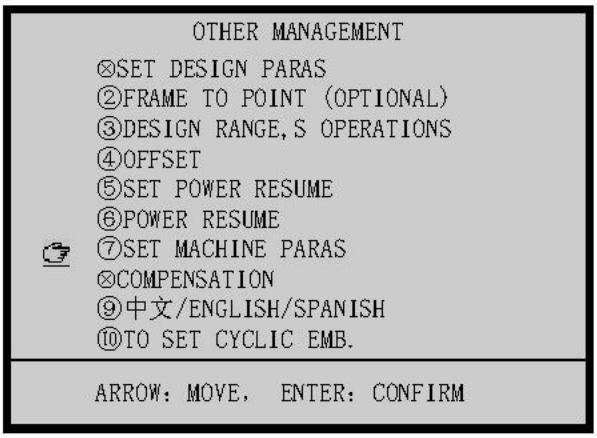
(5) Press "[≡]" key or "[↵]" key to end the operation and exit.

5-5 Storing the Manual Color-changing Number into Color Line

In embroidery confirmation status, if the machine carries out manual color-changing, the computer will store the manual color-changing number into color line or not according the setting of "STORE MANUAL-COLOR". It functions as following: A) During embroidering, if one number in color line is wrong, you can execute the manual color-changing, and then the computer will automatically store the correct number into color line. B) If you embroider a new design first time and you can not decide the color line, you can set the color line using the setting of " STORE MANUAL-COLOR ".

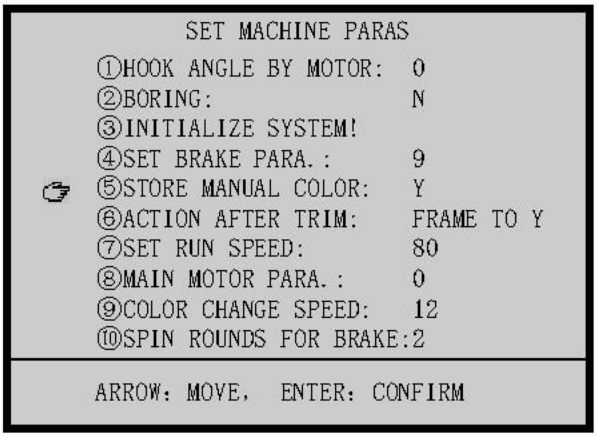
Operation:

(1) Press "[⌐]" key, the menu appears as following:



(2) Press "[↑]"、"[↓]" or digital key "7" to move the cursor to "SET MACHINE PARAS", and then press "[↵]" key.

(3) Press "[PD]" key to turn to page 2, which is as following:



(4) Press "⇧", "⇩" or digital key "5" to move the cursor to "STORE MANUAL-COLOR ", and then press "↵" key.

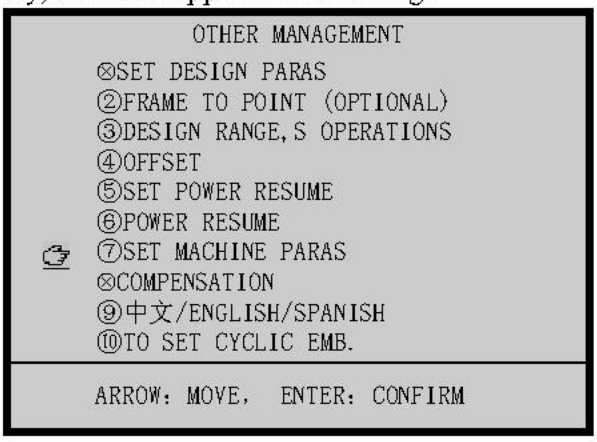
(5) Press "⇧", "⇩" key to select "Y" or "N".

(6) Press "↵" key.

5-6 The Color-changing Speed

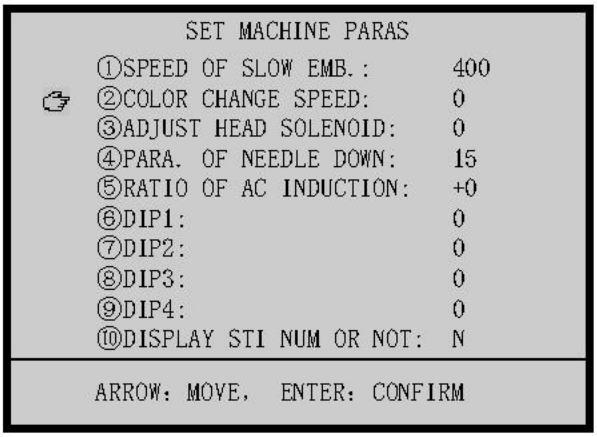
The color-changing speed can be adjusted for the specific machine, which execute the color-changing operation by stepping motor. The speed adjusting is for meeting the need of different mechanical characteristic.

(1) Press "⌙" key, the menu appears as following:



(2) Press "⇧", "⇩" or digital key "7" to move the cursor to "SET MACHINE PARAS", and then press "↵" key.

(3) Press "PD" key to turn to page5, which is as following:



(4) Press "⇧"、"⇩" or digital key "2" to move the cursor to "COLOR-CHANGE SPEED", and press "↵" key.

(5) Press "⇧"、"⇩" key to select the data, and greater data represents higher speed.

(6) Press "↵" key.

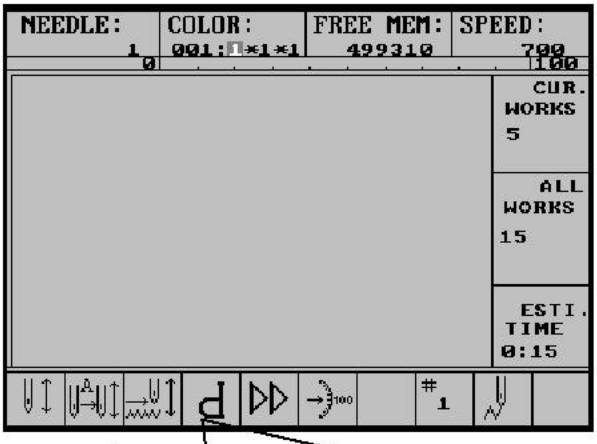
Chapter 6 Setting Design Direction

Before embroidery confirmation, you can set the design direction for embroidering. When the display of design direction is "P", the design embroidering direction is identical to its original direction. Take the embroidering of letter "F" as an example to explain the relations between the embroidered pattern and the design direction:

Design Direction	P	ɑ	d	ɒ	q	ơ	b	ɔ	P
Embroidered Pattern	F	ㄷ	ㅓ	ㅠ	ㅋ	ㅍ	ㄴ	ㅗ	F

Operation:

Press "  " key to change the design direction until the desired direction is selected.



Chapter 7 Frame Operations

7-1 Manual Frame Shifting

When the machine stops, press one of the four direction keys: "←" 、 "→" 、 "↑" 、 "↓", or any adjacent two of them to move the frame in eight different directions. The "▷▷" key is the speed-switching key of frame shifting. The frame-shifting speed is divided into high-speed and low-speed. When pressing the "▷▷" key, the speed is changed.

7-2 Returning to Origin Point

With this function, the frame can return back to the position before manual frame shifting. When machine stops halfway or embroidering finished, the frame can return back to the starting point of pattern with this function.

Operation:

A. Press "HOME" key, the menu frame appears as follows:

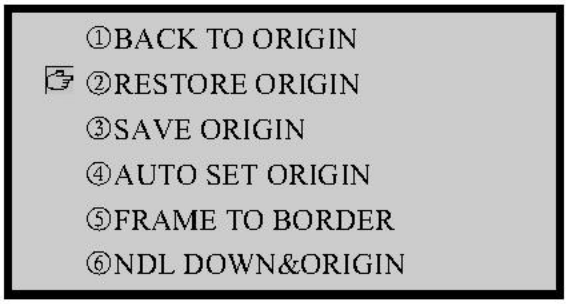
B. Press "↵" key to confirm the operation, or press "ESC" key to quit.

7-3 Restore Pattern's Origin Point

If the origin point of this design has been saved into the computer, this function could restore the saved origin point for embroidering the design.

Operation:

A. Press "HOME" key, the menu frame appears as follows:



B. Press "⇩" or "2" key to move the cursor to " RESTORE ORIGIN", and then press "↵" key to continue.

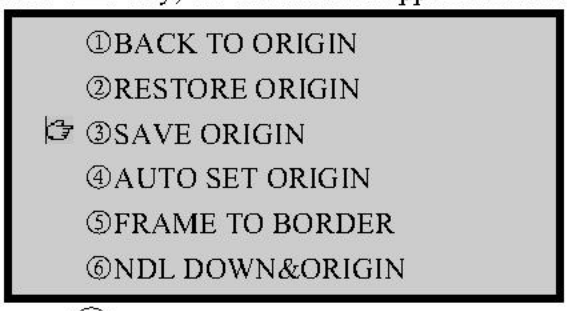
C. The computer will prompts: "PRESS [HOME] KEY TO RESTORE ORIGIN", and you can press "HOME" to move the frame to the saved origin point. Otherwise, press any other key.

7-4 Save Pattern's Origin Point

This function could save the origin point for the pattern.

Operation:

A. Press "HOME" key, the menu frame appears as follows:



B. Press "⇩" or "3" key to move the cursor to " SAVE ORIGIN", and then press "↵" key to continue.

C. The computer will prompts: "PRESS [HOME] KEY TO SAVE ORIGIN", and you can press "HOME" to save the origin point. Otherwise, press any other key.

7-5 Automatically Set the Origin Point

This operation must be after "Setting the Embroidery Frame Range" in assistant management. (For details, read chapter 27 of the manual),

This function would calculate the origin point for the selected pattern, and move the frame to the new origin point, which will make the pattern at the center of frame.

Operation:

A. Press "HOME" key, the menu frame appears as follows:

B. Press "↓" or "4" key to move the cursor to " AUTO SET ORIGIN", and then press "↵" key to continue.

C. The computer will prompts: "PRESS ENTER TO CONTINUE", and you can press "↵" key to move frame to the new origin point, which let the pattern at the center of frame. Otherwise, press any other key.

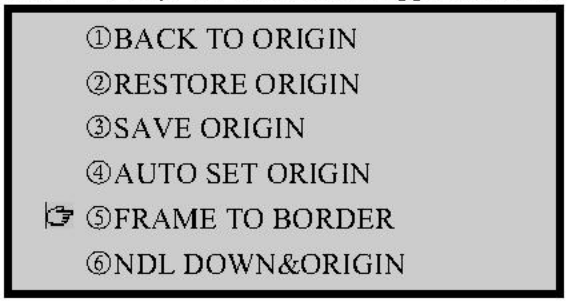
Attentions: This function doesn't do the function of "Save Pattern's Origin Point", in case of clearing the last origin.

7-6 Moving Frame along the Border

After selecting the pattern but before starting embroidery, the frame will run along the periphery for checking whether it exceeds the limits.

Operation:

A. Press "HOME" key, the menu frame appears as follows:



B. Press "↓" or "5" key to move the cursor to " FRAME TO BORDER", and then press "↵" key to continue.

C. The computer will prompts: "FRAME ALONG DESIGN RANGE!", and you can press "↵" key to move frame along the border. Otherwise, press any other key.

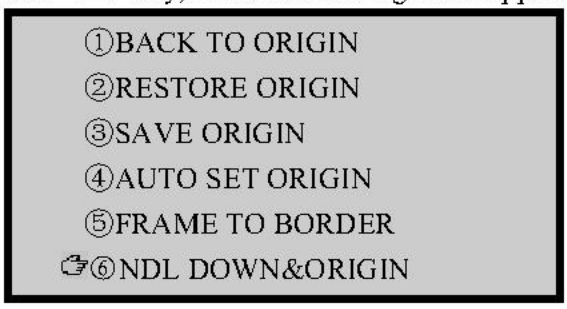
7-7 Returning to the Origin Point with needle down

This function is designed for returning to the origin point after releasing the cloth from the frame (in roll-cloth embroidery). Prior to this operation the parameter "AUTO ORIGIN" in

"MACHINE PARAS" must be set as "N". Otherwise this function can't be performed in the right way.

Operation:

(1) Press "HOME" key, and the following menu appears:



(2) Press "⇩" or "6" key to move the cursor to "NDL DOWN&ORIGIN", and then press "↵" key to continue.

(3) Press "↵" to let needles stick into the embroidery material.

(4) Release the material from the frame. Wait until the screen shows "MOVE FRAME TO ORIGIN POINT".

(5) Press "↵" and the frame will return to the origin point in Y direction (no change in X direction). The screen will show "To Turn Axis" .

(6) Press "↵", and the needles will be lift up and the main shaft will return to the stop position 100°.

(7) Pull the bar to embroider.

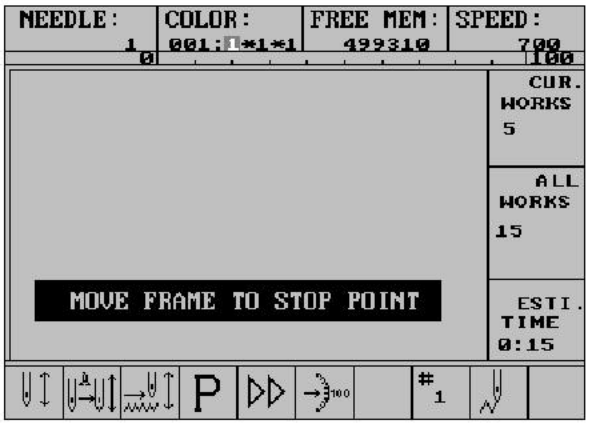
7-8 Returning to the Stop-embroidery Point

This function is intended for patching cloth operation. After halting in the halfway of embroidering operation, press the manual frame-shifting key to shift the frame out (for patching cloth). After the completion of patching cloth, this function can make the frame return to the stop-embroidery point.

Operation:

(1) Press the manual frame-shifting key to shift the frame out (for patching cloth).

(2) Press "END" key, the main picture appears as follows:



(3) Press "↵" key to confirm the operation, or press any other key to quit.

Chapter 8 Embroidery Speed (Main Shaft Speed)

In the process of embroidery, the main shaft speed of the embroidery machine will change by computer according to the stitch length of pattern. The low speed is intended for long stitch embroidery, whereas high speed for short stitch. However, user can set the limit speed, what is called "SETTING LIMIT SPEED". The highest embroidery speed can increase or decrease within the limit speed.

The limit speed ranges from 250 rpm to 850 rpm.

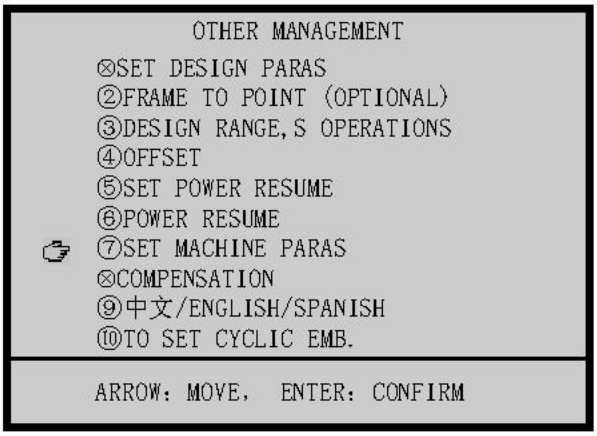
The limit speed ranges from 250 rpm to 850 rpm (Some types may have difference, for example: 1000rpm type). User can select the limit speed and don not need superabundance. For example: in normal using is 750rpm, then set in 750rpm.

8-1 Setting the Limit Speed

This setting specifies the limit value for the highest embroidery speed.

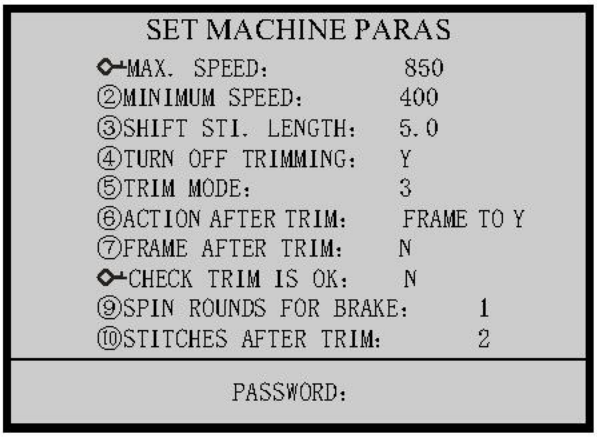
Operation:

(1) Press "[⌂]" key, the menu appears as following:



(2) Press "⇧", "⇩" or digital key "7" to move the cursor to "SET MACHINE PARAS", and then press "↵" key.

(3) Press "PD" to turn to the third page and select the option "MAX. SPEED", and press "↵" key.



(4) Required by the system, input the correct password and press "↵" .

(5) Press "⇧"、"⇩" key to select the speed value, and press "↵" key.

(6) Press "ESC" to end the setting.

(7) Press "ESC" to quit the main setting.

NOTE: The default value is recommended for the maximum speed.

8-2 Setting Embroidering Speed

It specifies the running speed during embroidering operation.

Operation:

(1) Press "⏩" key. When pressing once the key, the speed will raise 10 rpm. When having been reached the limit speed, the speed will not raise any more.

(2) Press "⏪" key. When pressing once the key, the speed will reduce 10 rpm. When reducing to 250 rpm, the speed will not reduce any more.

Chapter 9 Trimming Thread

9-1 Automatic Trimming Thread

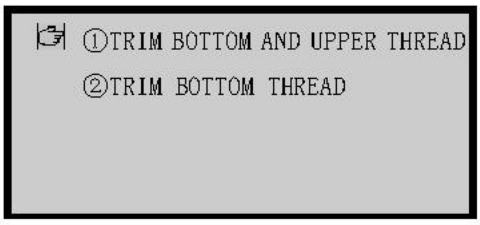
When operations such as color changing, frame jumping, etc. are required in embroidery, as well as at the end of embroidering, the machine can trimming thread automatically. In the event of user wants to cut thread at other moment, he can do it by manual trimming thread.

9-2 Manual Trimming Thread

This function can be executed by pressing several keys.

Operation:

(1) Press "[✂]" key, the main screen appears as follows:



(2) Press "[⇧]"or"[⇩]" key to select the trimming method and press "[↵]" key to trim thread or press "[ESC]" key to quit.

Chapter 10 Disk Operations

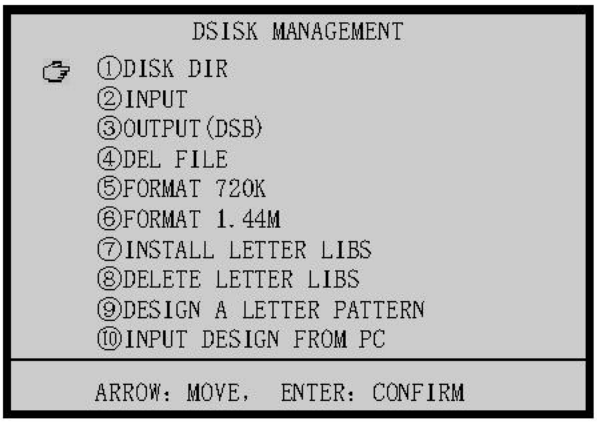
The operation of the USB disk is same to the floppy disk. Disk design is input using USB disk by USB port or using floppy disk by USB port. The floppy disk is chose station. The system has one USB port, so it can be connected one floppy disk or one USB disk. You can insert or draw floppy/USB disk directly.

10-1 Directory Listing of Disk

This operation is able to view the pattern stored in disk, as well as file name, file length and free space of disk.

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "[]" key, the disk operation menu appears as following:



(2) The cursor will be at "DISK DIR", press"[]" key.

(3) The LCD will display the file in floppy/USB disk. If the file count is greater than 10, you can press"[PD]" and "[PU]" key to turn to other pages.

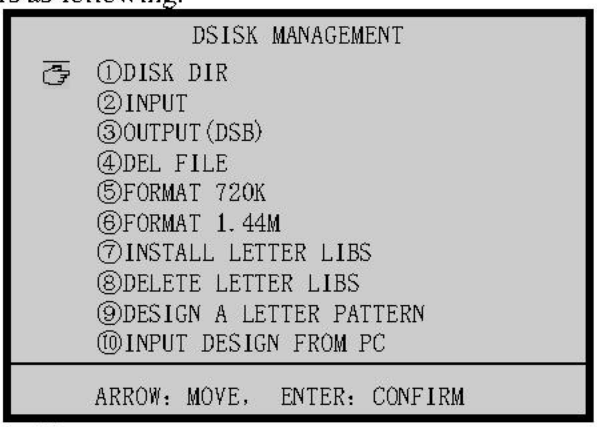
(4) Press "[]"、"[]" key to select the pattern, and press "[]" or "[]" key to view it. During the viewing, you can press "[PU]" or "[PD]" key to vary the display speed. Press "[ESC]" to end the display.

(5) Press "[ESC]" or "[]" key to quit the disk operation.

10-2 Input Pattern from Disk to Memory

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "[key]" key, the disk operation menu appears as following:



(2) Press "[key]", "[key]" key or digital key "2" to move the cursor at "INPUT", press"[key]" key.

(3) Press "[key]", "[key]" key to select the pattern (you can press "[key]" key to view it), and press "[key]" key.

(4) At the bottom of LCD, the computer will show the minimum available number of pattern (recommended for use). If you use it as the new pattern number, press "[key]" key to confirm, and then begins the disk reading operation. If disagreeing to use the pattern number, press digital keys to enter the pattern number you want. In the event of having error in entering numeral, press "[key]" key to clear it. After entering the pattern number, press "[key]" key for setting. When there is any conflict between the entered pattern number and the pattern number existed in memory, the machine will refuse to accept this entry; therefore you should enter another pattern number and press "[key]" key. After the pattern number having been proved to be correct, then begins to read the pattern from disk to memory. Upon the completion of pattern reading, it will return to the disk operation menu.

(5) Press "[key]" or "[key]" key to quit the disk operation.

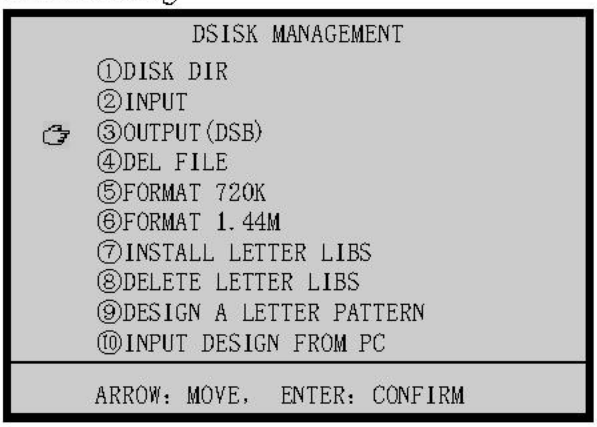
10-3 Output Pattern from Memory to Disk

It stores the pattern in memory to disk in a binary format. Coordinating to the use of “Input Pattern from Memory to Disk”, this function is able to complete the operation of copying a pattern from a disk to another disk.

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "[key]" key, the disk

operation menu appears as following:



(2) Press "⇧"、"⇩" key or digital key "3" to move the cursor at "OUTPUT(DSB)", press"↵" key.

(3) Press "⇧"、"⇩" key to select the memory pattern, and press "↵" key.

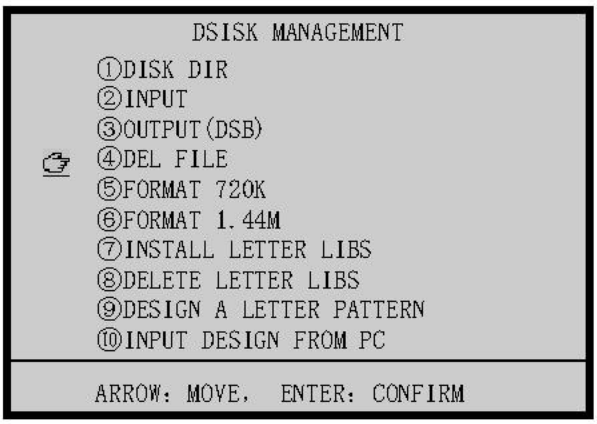
(4) Press digital keys to enter the disk file name, press "↵" key to begin saving the pattern into disk (or press "ESC" key to give up the operation). After finishing the save, the disk operation menu appears.

(5) Press "ESC" or "💾" key to quit the disk operation.

10-4 Deleting the Pattern in Floppy Disk

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "💾" key, the disk operation menu appears as following:



(2) Press "⇧"、"⇩" key or digital key "4" to move the cursor at "DEL FILE",

press"↵" key.

(3) Press ⇧/⇩/PD/PU key to select the pattern (you can press "▢" key to view it), and press "↵" key to delete the pattern or press "ESC" to give up.

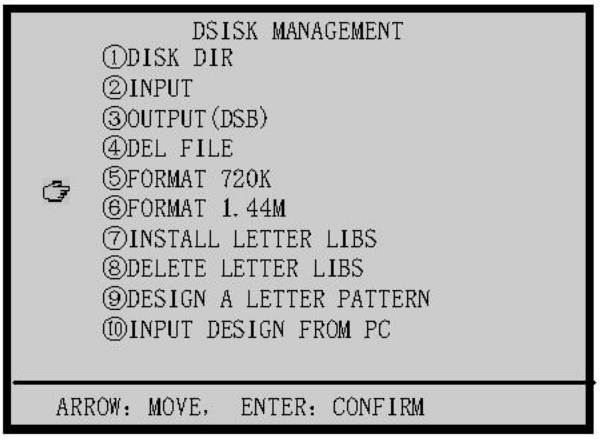
(4) Press "ESC" or "💾" key to quit the disk operation.

10-5 Formatting a 720KB Diskette

It carries out formatting of a double density 3.5 inch diskette in DOS format.

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "💾" key, the disk operation menu appears as following:



(2) Press "⇧"、"⇩" key or digital key "5" to move the cursor at "FORMAT 720K", press"↵" key.

(3) Press "↵" key to format disk (or press "ESC" to give up), after finishing the operation, the disk operation menu will appear.

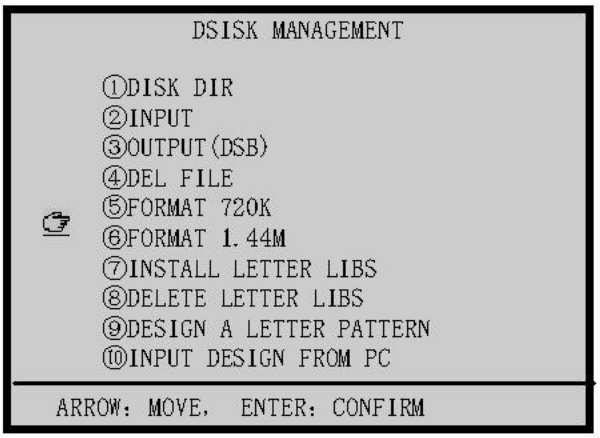
(4) Press "ESC" or "💾" key to quit the disk operation.

10-6 Formatting a 1.44MB Diskette

It carries out formatting of a high density 3.5 inch diskette in DOS format.

Operation:

(1) Insert the pattern disk into floppy/USB disk driver, and press "💾" key, the disk operation menu appears as following:



(2) Press "⇧", "⇩" key or digital key "6" to move the cursor at "FORMAT 1.44M", press"↵" key.

(3) Press "↵" key to format disk (or press "ESC" to give up), after finishing the operation, the disk operation menu will appear.

(4) Press "ESC" or "💾" key to quit the disk operation.

10-7 Installing the letter library

Please read the related part in chapter 16.

10-8 Deleting letter library

Please read the related part in chapter 16.

10-9 Designing Letter Pattern

Please read the related part in chapter 16.

10-10 Input Design from PC

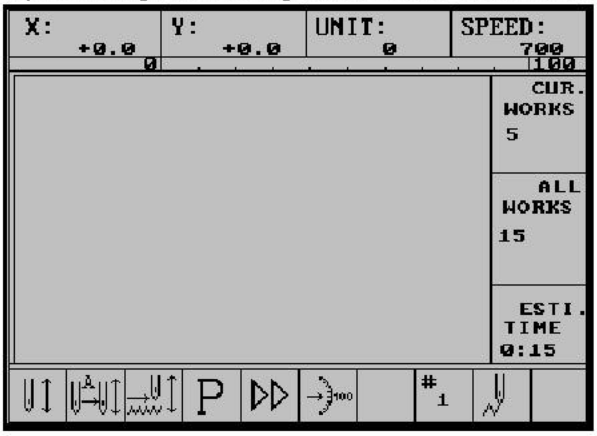
Please read the related part in chapter 29.

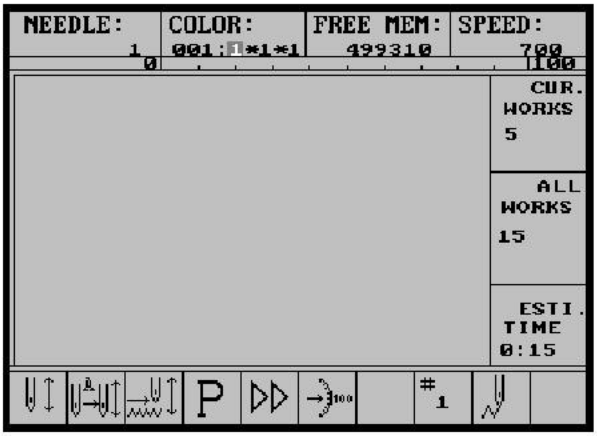
Chapter 11 Displaying Parameters and Frame (Picture)

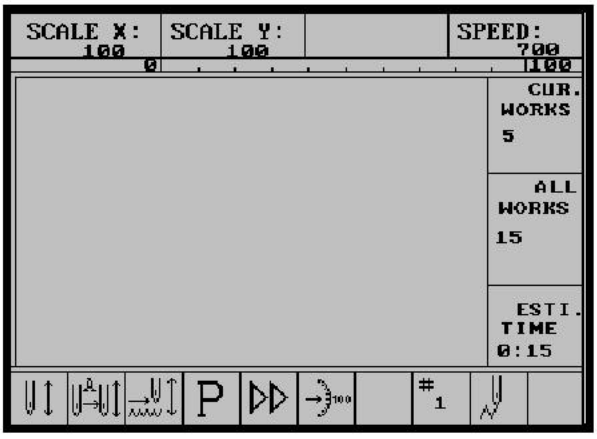
11-1 Viewing the Common Parameters and Setting the Showing Parameters

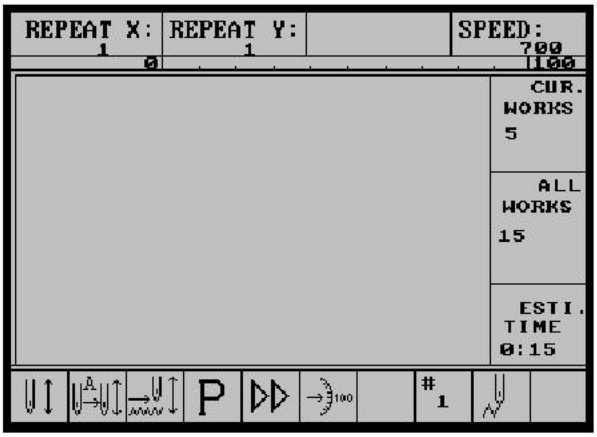
Operation（embroidery preparation）:

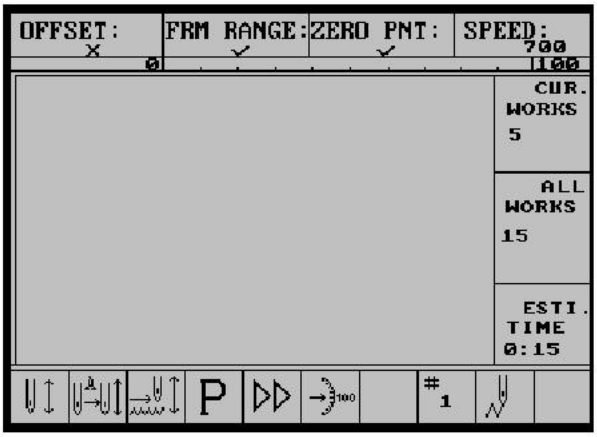
(1) Press "[ ]" key to change the main picture as one of the four following pictures:











(2) After setting the main picture, the parameters in the picture will be showed in real time.

11-2 Display Embroidery Statistics

Operation:

(1) Press"[-/-]"to display the first page of embroidery information.

[EMBROIDERY]

TOTAL TIME:	4:38:45
EMB. TIME:	4:32:19
STOP TIME:	0:6:26
T.B. NUM:	10
T.T. TIME:	0:20
TOTAL WORKS:	22
POWER NUM:	2

(2) Press “C” to clean or press any other key to enter the second page of embroidery information.

[DESIGN]

NUMBER WORKS	COUNT	STITCHES	TIME
12	1	21583	2:52:45	5
99	1	64	0:0:43	1
1	1	3200	1:30:18	16
0	0	0	0:0:0	0
0	0	0	0:0:0	0
0	0	0	0:0:0	0
0	0	0	0:0:0	0
0	0	0	0:0:0	0
0	0	0	0:0:0	0
0	0	0	0:0:0	0

The above statistics are based on software counting, and the statistics information is based on system real time clock. The software begins counting time when doing such operations: (1) power on the computer; (2) begin embroidering from stop state; (3) stop from embroidering state; (4) confirm to embroider; (5) release embroidery confirmation status; (6) finish embroidering one pattern and stop; (7) press "$\overline{1/}$" key and display embroidery statistics information.

So, the computer omits the time between the last counting and shutting off the computer.

Items of [Embroidery] give the below embroidering statistics during the machine is on.

Total Time is the total time of embroidering time and stop time.

Emb. Time is the total time of “normal embroidering”, “low speed idling” and “high speed idling”.

Stop Time is the time when the machine does not run.

T. B. Num is the times the computer has detected thread broken when the machine is running.

T. B. Time is the average time between each stop when thread breaks and pull bar switch to continue embroidering.

Total Works is the total amount of patterns finished embroidering by each head during the statistical time.

Power Num is the times of power on.

Items of [DESIGN] give the information of the last 10 designs. Attentions: if the design number, count and accumulated stitch count are different from before, then it will be considered to be another one and will give another information list.

Design Number is the number of the design that has been embroidered.

Design Count is the amount of normal designs within embroidering parameters.

Design Stitches are the total stitches after adding some embroidery parameters.

Time is the total time between confirmation and release of embroidering.

Works is the amount of normal designs being finished by each head.

(3) Press "  " key to return to the main picture.

11-3 Clearing Accumulated Stitch Count and X/Y Displacement

Operation:

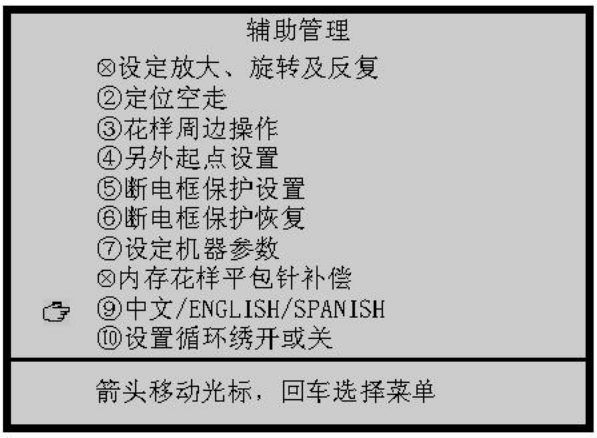
(1) Press "  " key until the "Overall Stitch Count" or "X/Y Displacement" is on the main picture.

11-4 Switching of Display Language

1. Changing the Chinese display into English display (in Chinese display)

Operation:

(1) Press "  " key, the menu appears as following:



Press "⇧"、"⇩" to move the cursor to "中文/ENGLISH/SPANISH", and then press "↵" key.

When the system language is in certain state, press this key to shift to the next language main screen (Note: when the system in the last language, press this key to shift to the first one).

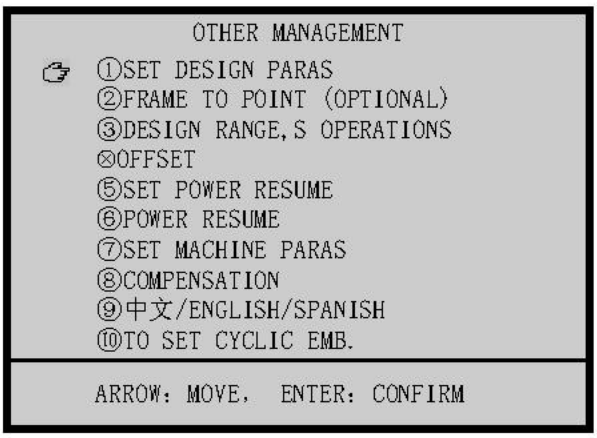
Chapter 12 Assistant Operation and Setting the Parameters

12-1 Setting of Magnification, Rotation and Repetition

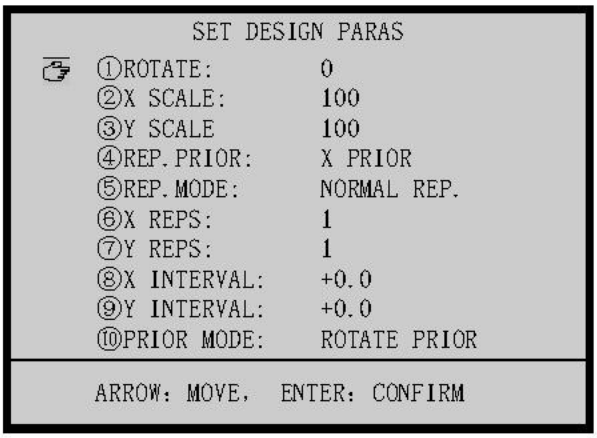
This operation is able to set the magnification factor (50% ~ 200%), angle of rotation (0° ~ 89°) of a pattern, as well as repetition if necessary in embroidery.

Operation: (in embroidery preparation status)

(1) Press "[key]" key, the menu appears as following:



(2) The cursor will be at "SET DESIGN PARAS", and press "[key]" key to enter the next menu as following:



(3) Press "[key]", "[key]" and "[key]" key to select the following parameters for revising them:

(1) Angle of rotation (0° ~ 89°)

Use digital key, "[key]" and "[key]" keys to input data. This angle is an angle at which a pattern rotating counterclockwise according to the selected design direction.

(2) X magnification (50% ~ 200%)

Use digital key, "0" and "ENTER" keys to input data. This magnification is a transverse magnification of a pattern.

(3) Y magnification

Use digital key, "0" and "ENTER" keys to input data. This magnification is a longitudinal magnification of a pattern.

(4) Repetition sequence (X priority or Y priority)

Use "↑", "↓" and "ENTER" keys to perform the inputting. X priority presents the repetitive embroidery line by line in transverse direction during repetition. Y priority presents the repetitive embroidery row by row in longitudinal direction.

(5) Repetition mode (usual or partial)

Use "↑", "↓" and "ENTER" keys to perform the inputting. Usual repetition refers to the embroidering operation that after a complete pattern having been embroidered, the same pattern will be embroidered in the next position, i.e. the repetitive embroidery is performed by a complete pattern after another. Partial repetition refers to the embroidering operation that after a pattern having been embroidered with stitches of one color, the embroidery will be continued in the corresponding position of the next pattern with the same color stitches until this color repetition is completed, and then the embroidering operation will repeat with another color stitches until the repetitive embroidery is made with all color-stitches, i.e. the completion of the repetition of a complete pattern is based on the repetition of each part.

For partial repetition, you must compile the pre-embroidering pattern into a normal pattern, and embroider the normal pattern. (See Chapter 17)

(6) Frequency of X repetition (1 ~ 99)

Use digital key, "0" and "ENTER" keys to input data. The frequency of X repetition presents the number of transversal repetition, i.e. the frequency of repetitive embroidery in a line.

(7) Frequency of Y repetition (1 ~ 99)

Use digital key, "0" and "ENTER" keys to input data. The frequency of Y repetition presents the number of longitudinal repetition, i.e. the frequency of repetitive embroidery in a row.

(8) X repetition distance (unit: mm)

Use digital key, "0", "+/-" , "M·ORG"and "ENTER" keys to input data. X repetition distance

presents the distance between the starting points of two adjacent patterns in transverse direction during repetition (accuracy: 0.1mm).

(9) Y repetition distance (unit: mm)

Use digital key, "C", "+/-" , "N=ORG"and "↵" keys to input data. Y repetition distance presents the distance between the starting points of two adjacent patterns in longitudinal direction during repetition (accuracy: 0.1mm).

(10) Priority modes (magnification priority or rotation priority)

Use "↑", "↓" and "↵" keys to perform the inputting. When selecting X magnification dissimilar to Y magnification and with rotating angle, the magnification priority and rotation priority can give different embroidery results.

(4) Press "⌂" or "ESC" key to end setting the parameters.

(5) Press "⌂" or "ESC" key to go to the main picture.

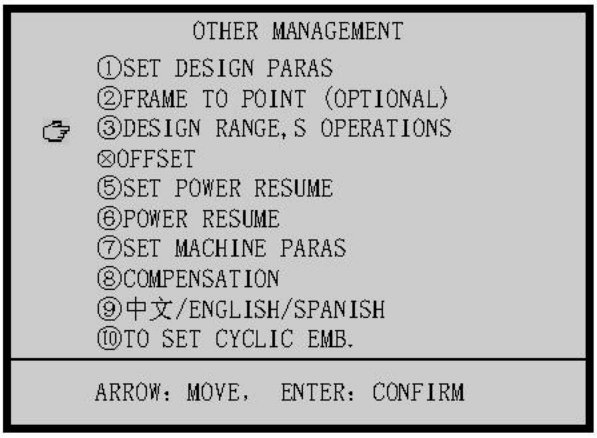
12-2 Frame to Point

For details, please read the concerned part in chapter 4.

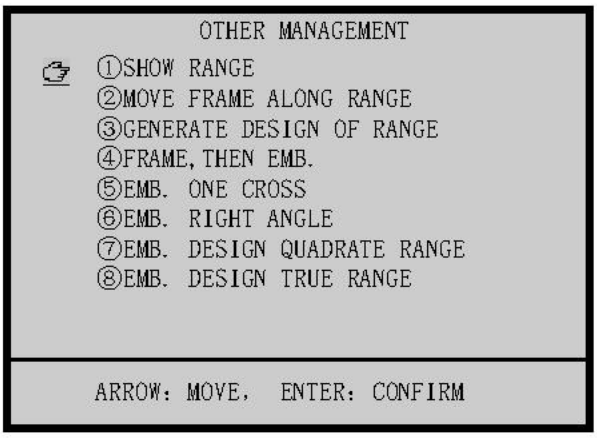
12-3 Operations of Pattern Periphery

Operation:

1. Press "⌂" key and the menu appears as follows:



2. Press "↑", "↓" key or digital "3" to move the cursor to "DESIGN RANGE'S OPERATIONS", and press "↵" key to enter the next menu as following:



3. According to the prompt, press "⇧", "⇩" and "↵" keys to complete the following operations:

(1) Showing periphery

After selecting pattern but before starting embroidery, check the peripheral range of the pattern.

(2) Moving frame along the periphery

After selecting the pattern but before starting embroidery, the frame will run a cycle along the periphery for checking whether it exceeds the limits.

(3) Generating a new periphery pattern

This operation can be carried out after selecting the pattern but before starting embroidery, which can produce a peripheral pattern of the current pattern. The peripheral pattern can be embroidered separately.

In case user's embroidering periphery can be achieved by embroidering the peripheral pattern, and the peripheral pattern has a central "+" line, if the length of the central "+" line is insufficient, the No. 99 pattern can be used for supplementary embroidery.

(4) Move frame and embroider back along the path

Operation: move the frame along the assigned paths from the current position, when meet a inflexion, press "↵" key to confirm the line path; then repeat the above operation to finish the whole paths, you can also quit to the main picture by pressing "ESC" key; finally, you can pull the bar directly to start embroidering, the machine will embroider along the trace in converse direction to current position, and return to the "preparation status" automatically.

(5) Embroider one cross at current position

Operation: input the length of the cross (unit: mm), then the system will return to the main picture automatically. You can pull the bar directly to start embroidering and the machine will embroider a "+" at current position, and return to the "preparation status" automatically.

(6) Embroider right angle at current position

Operation: first, input the length of X-direction (unit: mm. If it is positive, then embroider along X-direction, if it is negative, embroider along the X negative direction); second, input the length of Y-direction (unit: mm. If it is positive, then embroider along Y-direction, if it is negative, embroider along Y negative direction), then the system will back to the main picture automatically; finally, you can pull the bar directly to start embroidering and the machine will embroider a right angle at current position, and, return to the "preparation status" automatically.

(7) Embroider design's quadrate range

Operation: the system will create a quadrate design and return to the main picture automatically; you can pull the bar directly to start embroidering and the machine will embroider the quadrate range at current position, and return to the "preparation status" automatically.

(8) Embroider design's true range

Operation: the system will create a figure design similar to the current design and return to the main picture automatically; you can pull the bar directly to start embroidering and the machine will embroider the figure at current position, and return to the "preparation status" automatically.

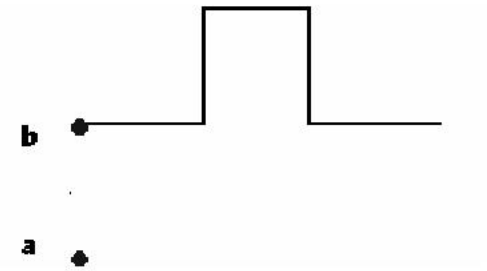
Therefore, the operation is especially convenient for positioning operation.

4. Press "  " or "  " key to end the operations of pattern periphery.

5. Press "  " or "  " key to go to the main picture.

12-4 Setting the Offset Point (under Embroidery Confirmation Status)

What is called offset point can be an arbitrary point beyond the starting point of the pattern as shown in the following figure:



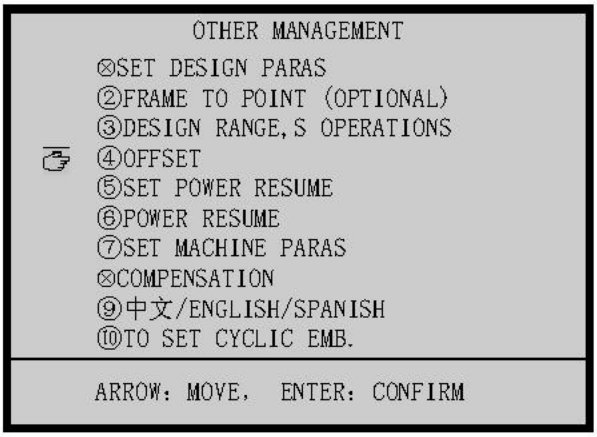
a: offset point, b: starting point

When you select a pattern and make the machine enter into the embroidery confirmation status, the system will clear the offset point. Operations for setting offset point and embroidering is as following:

(1) Select a pattern for embroidering and make the machine enter into embroidery confirmation status. (See Section 3-4)

(2) Press "◁", "▷", "△" and "▽" to move the frame to the starting point of pattern.

(3) Press "⌙" key, the menu appears as following:



(4) Press "△", "▽" key or digital "4" to move the cursor to "OFFSET", and then press "↵" key.

(5) Press "◁", "▷", "△" and "▽" to move the frame to the offset point. In case of needing not to set offset point or wanting to deleting offset point that has been set previously, go to the following step without moving the frame to the offset point.

(6) Press "↵" key to continue.

(7) Pull the bar and start embroidering.

Note: The offset point also is the point to which the frame automatically moves while

patching.

12-5 Setting Frame Protection when Power Off (Setting the Machine's Zero Point)(in embroidery preparation state)

The purposes of the operation are:

Purpose 1: The function of "setting the protection when power off/frame zero point" can restore the frame position when power off unexpectedly together with the function of power resume.

Purpose 2: The function of "setting the protection when power off/frame zero point" is to set the base point when a pattern's origin point needs to be saved and restored. This base point is recommended to be any point on the bedplate, once being set, you'd better not change it and should marks flag.

Note:

Note 1: The realization of purpose 1 is based on the available limit switch and setting frame zero point automatically.

Note 2: The operation of "setting frame zero point automatically" or "Setting frame zero point manually" all can set the base of saving and restoring the pattern's origin point.

Note 3: The operation of this function can only be done with one of two operations of "setting frame zero point automatically" and "Setting frame zero point manually".

Note 4: Except for particular instance, during embroidering by normal operation, whether handy frame origin memory or auto frame origin memory, one time correct setup is ok.

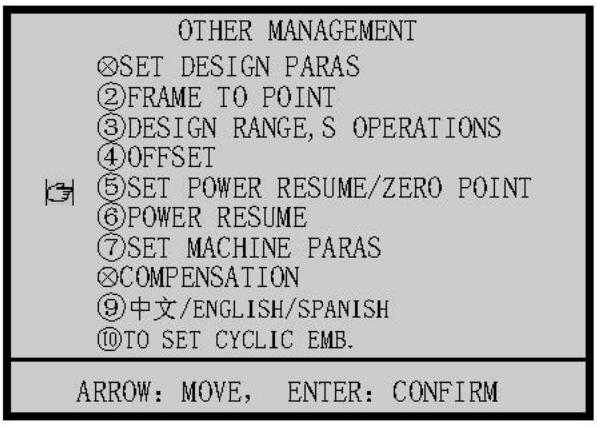
1. Setting frame zero point manually

Note: when meeting emergency stop because of malfunctions or something unusual such as power off unexpectedly, etc. the machine will cancel the "setting frame origin" function to avoid the mistakes. So, at that time, you should do operation of "Setting frame zero point manually" again at the last frame zero point.

If the frame has been moved after power off, or if power on again after maintenance, you should do again the operation of "Setting frame zero point manually".

Operation:

(1)Press "  " key, the menu appears as follows:



(2)Press "⇧", "⇩" keys or numeric key "5" to move the cursor to "SET POWER RESUME/ZERO POINT", and press "↵" key.

(3) If the function of "setting emb. frame range" has been set, then there will be a warning: "AUTO CLEAR 'EMB. FRAME RANGE'", and press "↵" key to continue.

(4)The prompt is "MANUALLY 'SET ZERO' POINT?", then select "YES" with "⇧", "⇩" keys, and press "↵" key.

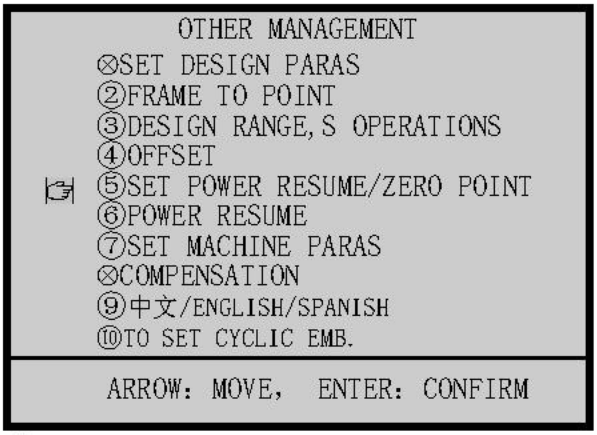
(5)Do as prompting, mark the frame zero point when the frame has been moved to the selected zero point, then finish the setting by pressing "↵" key.

2. Setting frame zero point automatically

Note: please ensure that the limit switch is available before this operation, or the frame will be damaged.

Operation:

(1)Press "⌙" key, the menu appears as follows:



(2)Press "⇧", "⇩" keys or numeric key "5" to move the cursor to " SET POWER

RESUME/ZERO POINT ", and press "↵" key.

(3)If the function of "setting emb. frame range" has been set, then there will be a warning: "AUTO CLEAR 'EMB. FRAME RANGE'", and press "↵" key to continue.

(4) The prompts is "MANUALLY 'SET ZERO' POINT?", then select "NO" with "⇧", "⇩" keys, and press "↵" key.

(5) The machine will give a prompt "TO SET POWER RESUME", and press "↵" key, then the frame begin moving, when meets the limit switch, the frame will return to the zero point. The setting then finished.

12-6 Frame Restoring after Power Off

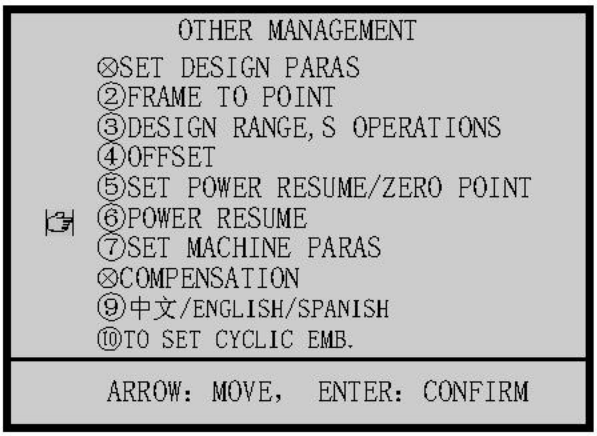
In case of frame having been moved after power off, this operation can be used to restore the frame position before power off when the power is on again. The proper performance of this operation is based on the "SET POWER RESUME/ZERO POINT". In addition, if the power is off in the process of embroidering operation and the frame has not been shifted, you also can directly pull the operation bar to continue embroidering after power is on again.

It will be invalid if the operation of "setting frame zero point manually" is done.

Operation:

(1) Turn the main shaft to the stopping position at 100 degrees

(2) Press "⌂" key, the menu appears as follows:



(3) Press "⇧", "⇩" key or numeric key "6" to move the cursor to "POWER RESUME", and press "↵" key.

(4) Continue the operation according to the prompt, and the restoration of frame position

can be achieved.

(5) The main picture will automatically appear after it.

12-7 Demanding whether Setup Frame Zero Point or not

Press "[]" key to check whether machine setup frame ZERO POINT or not: the machine will be displayed as "ZERO POINT: ✓" if ZERO POINT setup, otherwise the machine will be displayed as "ZERO POINT: ×".

Setting frame zero point has two ways: auto ways and manual ways.

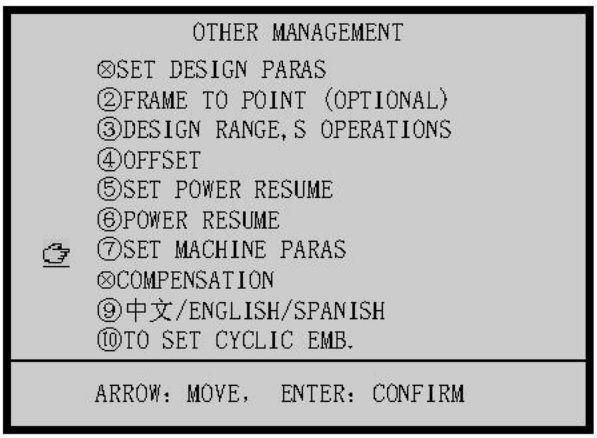
1. After auto setting frame zero point, if it is correct, then the icon "⊗" before "POWER RESUME" in the "OTHER MANAGEMENT" will be changed into "⑥".

2. If manually setting frame zero point, the icon "⊗" before "POWER RESUME" in the "OTHER MANAGEMENT" will be not changed, and it still be "⊗".

12-8 Setting the Machine Parameters

Operation:

(1) Press "[]" key under the embroidery preparation status and the following menu will appear:



(2) Press "[]"、"[]" or digital key "7" to move the cursor to "SET MACHINE PARAS", and then press "[]" key.

(3) The machine parameters are in 5 pages (you can press "[PD]" or "[PU]" key to turn to other pages), which are as chapter 32. The parameters can be revised using "[]", "[]", digital keys, "[]" and "[]" keys.

(4) Press "ESC" to end the operation.

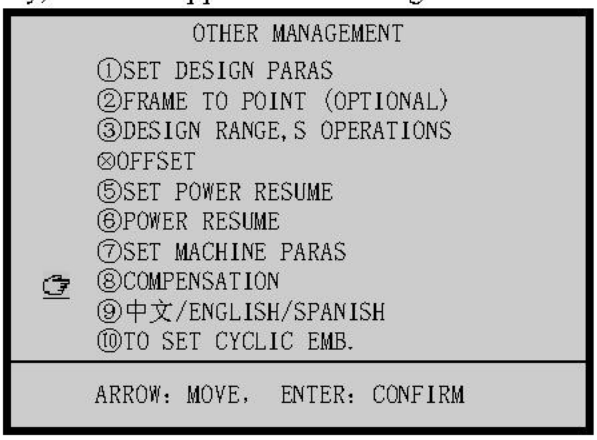
(5) Press "ESC" to go to the main picture.

12-9 Compensating of Satin Stitches

This operation is able to search automatically the satin stitches of the assigned pattern and carry out compensation as required, thus obtaining a widening or narrowing result of satin stitches. After compensating of satin stitches, a new pattern will be created but the source pattern keeps unchanged.

Operation: (in embroidery preparation status)

(1) Press "F" key, the menu appears as following:



(2) Press "↑", "↓" or digital key "8" to move the cursor to "COMPENSATION", and then press "↵" key.

(3) Select the source pattern according to the prompt.

(4) Input the X and Y compensation value, which ranges from -0.2 mm to +0.3 mm.

(5) Input the number of destination pattern.

(6) Wait a moment, the new destination pattern will be created.

(7) Press "ESC" to go to the main picture.

(8) During the input design process, the compensated design can be input to the memory directly by the prompt.

12-10 Chinese/English/Spanish

Please read the related part in chapter 11.

12-11 Set Cyclic Embroidery

Please read the related part in chapter 22.

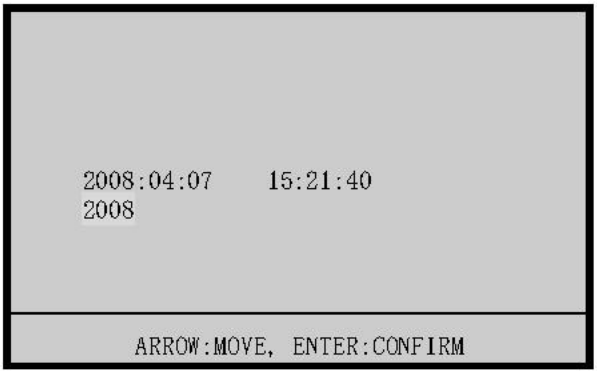
12-12 Set Date&Time

Date & Time of the system can be changed.

The operation is as follows:

(1) Press "  " key, the menu appears "OTHER MANAGEMENT"

(2) Press "  " or "  " key to turn to the correspond page, then press"  " or "" to move the cursor to "Set Date & Time". At last press "  " :



(3) Press "  " or "  " not to change the clock of the system.

Press "  " or "  " ,then press "  " to change the clock of the system and save it.

Chapter 13 Management of Pattern in Memory

13-1 Select a Pattern for Embroidery

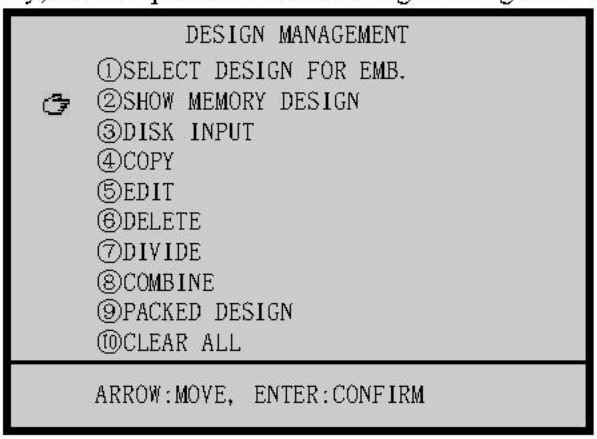
This function selects a pattern for the preparation-embroidering pattern. See section 3-4.

13-2 List the Pattern in Memory

This operation lets the operator able to view the pattern stored in memory, the pattern count, free memory, and also display the pattern information, such as color-changing times, stitch count, X range, Y range.

Operation:

(1) Press "[*]" key, the computer shows the design management menu as following:



(2) Press "⇧", "⇩" or digital key"2" to move the cursor to "SHOW MEMORY DESIGN", and then press "↵" key.

(3) Directory of pattern in memory is listed on screen and the pattern at the cursor is displayed automatically. In case of the directory exceeding one page, use "PD" or "PU" key for viewing.

(4) Press "⇧", "⇩" key to move cursor, and press "↵" key to view the pattern in detail.

(5) Now, you can view the pattern according to the prompt.

(6) Press "ESC" to end viewing.

(7) Press "" or "ESC" to end the design management.

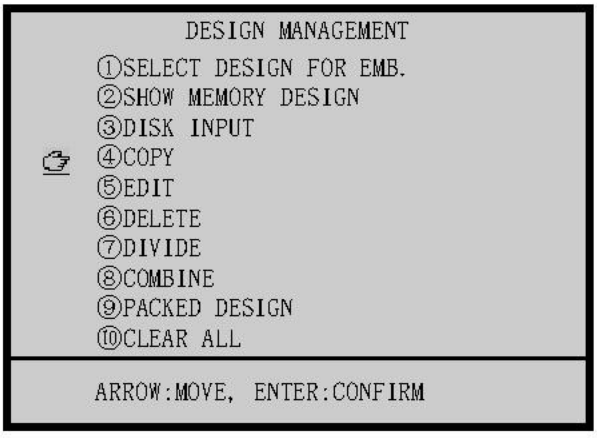
13-3 Input a Design into Memory from Floppy Disk

This operation can be seen in section 3-2.

13-4 Copy the Pattern

Operation:

(1) Press "" key, the computer shows the design management menu as following:



(2) Press "⇧", "⇩" or digital key"4" to move the cursor to "COPY ", and then press

"↵" key.

(3) Press "↑"、"↓", " "PD" and "PU"key to select the source pattern, and then press "↵" key to go to next step or press "ESC" key to quit.

(4) According the prompt, input the number of destination pattern, and press "↵" key to begin the copying.

(5) Press "✱" or "ESC" to end the design management.

13-5 Edit the Pattern

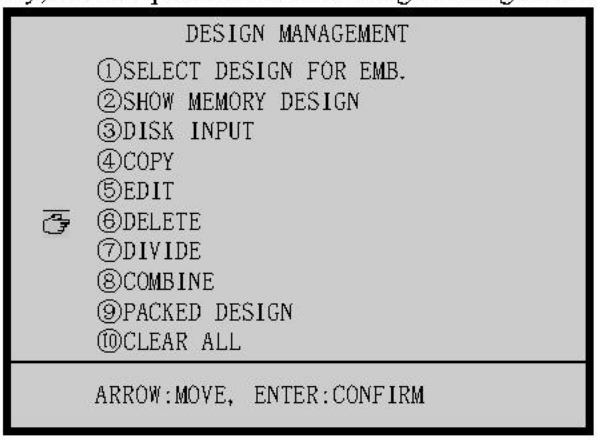
Please read the related part in chapter 14.

13-6 Delete the Pattern

It deletes a pattern in the memory.

Operation:

(1) Press "✱" key, the computer shows the design management menu as following:



(2) Press "↑"、"↓" or digital key"6" to move the cursor to "DELETE", and then press "↵" key.

(3) Press "↑"、"↓","PD" and "PU"key to select the pattern, and then press "↵" key to go to next step or press "ESC" key to quit.

(4) After the computer deletes the pattern, it will go to the design management menu.

(5) Press "✱" or "ESC" to end the design management.

13-7 Divide the Pattern

This operation is intended for dividing the pattern in memory into two new patterns and keeping the source pattern in memory unchanged.

Operation:

(1) Press "[icon]" key, the computer shows the design management menu as following:

(2) Press "[icon]"、"[icon]" or digital key"7" to move the cursor to "DIVIDE", and then press "[icon]" key.

(3) Press "[icon]"、"[icon]", ""[PD]" and "[PU]"key to select the source pattern, and then press "[icon]" key to go to next step or press "[ESC]" key to quit.

(4) After the prompt, input a stitch count (the first divided pattern has the stitches of the count number).

(5) Input the number of first divided pattern.

(6) Input the number of second divided pattern.

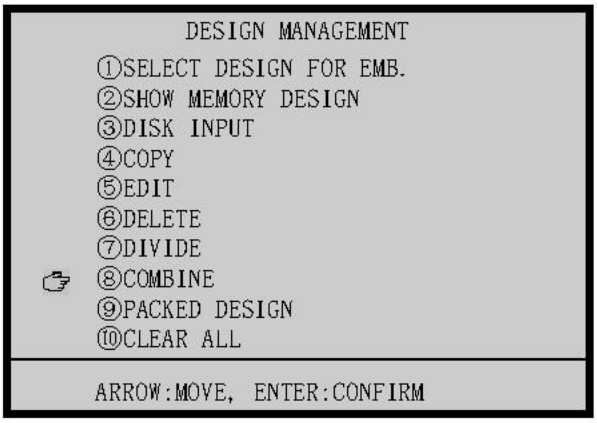
(7) The computer does the dividing, and then will go to the design management menu.

(8) Press "[icon]" or "[ESC]" to end the design management.

13-8 Splice two Patterns

Operation:

(1) Press "[icon]" key, the computer shows the design management menu as following:



(2) Press "↑", "↓" or digital key"8" to move the cursor to "COMBINE", and then press "↵" key.

(3) Press "↑", "↻", "PD" and "PU"key to select the first source pattern, and then press "↵" key.

(4) Press "Shift+↑", "Shift+↓", "PD" and "PU"key to select the second source pattern, and then press "↵" key.

(5) According the prompt, input the distance between the end stitch of first pattern and the beginning stitch of second pattern.

(6) Input the number of destination pattern.

(7) The computer does the splicing, and then will go to the design management menu.

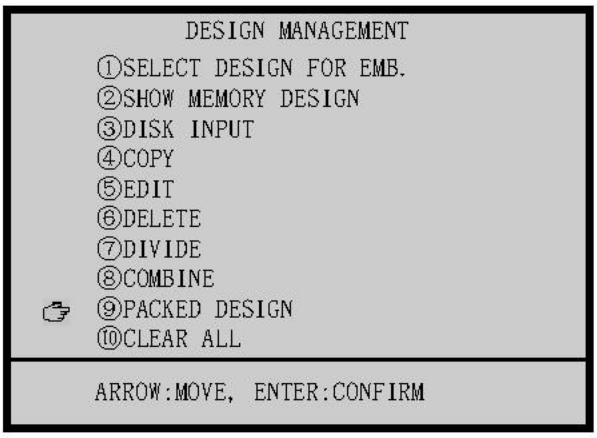
(8) Press "★" or "ESC" to end the design management.

13-9 Editing the Packed Pattern

The packed pattern means a pattern group packed from several (less than 100) normal patterns in memory after setting parameters, which is intended for continuous embroidery automatically.

Operation:

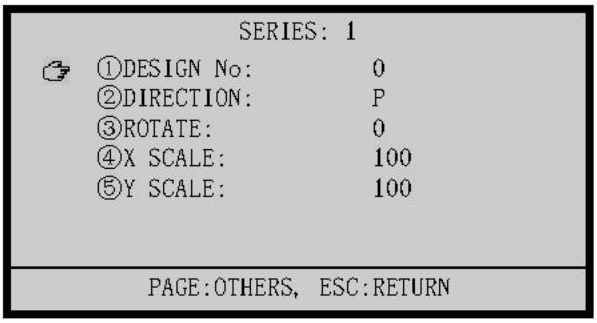
(1) Press "★" key, the computer shows the design management menu as follows:



(2) Press "⇧"、"⇩" or digital key"9" to move the cursor to "PACKED DESIGN", and then press "↵" key.

(3) The lower side of screen prompts you to enter the number of packed pattern. Input "0" for abandoning editing operation, or input a non-existent number of pattern for creating a packed pattern, or input an existent packed pattern for editing it. Whereas input a number of existent normal pattern in memory, then you must repeat the input.

(4) Enter the menu of editing packed pattern:



You must input the following parameters for each packing normal pattern: number of pattern in memory, design direction, angle of rotation, X magnification, Y magnification, X distance relative to the first pattern and Y distance relative to the first pattern.

Pressing "PD" and "PU"key, you can set several patterns. After completion, press "⊡" key to store the packed pattern and return to the design management. Or press "ESC" key and decide whether you save the packed pattern, then return to the design management.

(5) Press "[F]" or "[ESC]" to end the design management.

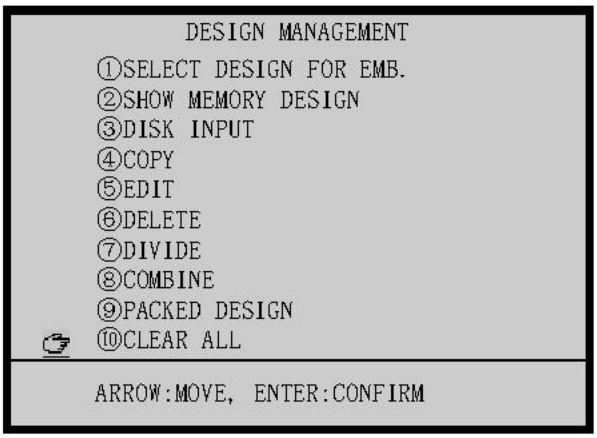
When a pattern is selected, the picture of a packed pattern (extension name "PAR") won't be displayed while a normal pattern (extension name "MEM") will. To display a packed pattern, you can transform it into a normal pattern through the operation of "COMPILE PACKED DESIGN" in "Other Management".

13-10 Clear All Patterns in Memory

This operation is intended for clearing all patterns in memory, be careful to use it!

Operation:

(1) Press "[F]" key, the computer shows the design management menu as following:



(2) Press "[↑]"、"[↓]" or digital key"0" to move the cursor to "CLEAR ALL", and then press "[↵]" key.

(3) The lower side of screen prompts you to check whether or not you clear all patterns. Press "[↑]"、"[↓]" keys to change [YES] or [NO]. Select [YES] and press "[↵]" key to clear all patterns. If select [NO] and press "[↵]" key or press "[ESC]" key to give up the operation.

(4) Press "[F]" or "[ESC]" to end the design management.

Chapter 14 Edit of the Pattern in Memory

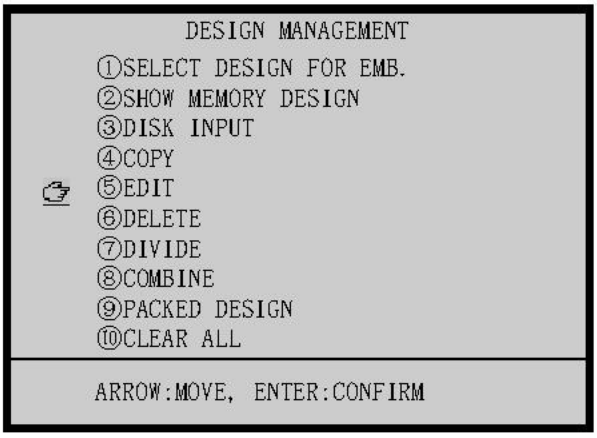
Adopting the most convenient, direct-viewing and full-screen editing mode, the function of editing pattern in memory has the advantages of editing, flexible, faultless, etc.

This function is able to directly carry out edit of the pattern with stitch count of less than 65 thousand. For the oversize pattern, indirect edit can be made. As for the oversize pattern, it is recommended to divide the pattern into several sub-patterns (the sub-patterns to be edited have stitch count of less than 65 thousand) which will then be edited respectively, and finally several sub-patterns are spliced in order. Owing to the oversize patterns appear seldom, therefore the contradiction between editing speed and editing oversize pattern will be solved easily.

14-1 Entering the Edit of Pattern in Memory

Operation: (in embroidery preparation state)

(1) Press "[*]" key, the computer shows the design management menu as following:



(2) Press "⇧"、"⇩" or digital key"5" to move the cursor to "EDIT", and then press "↵" key.

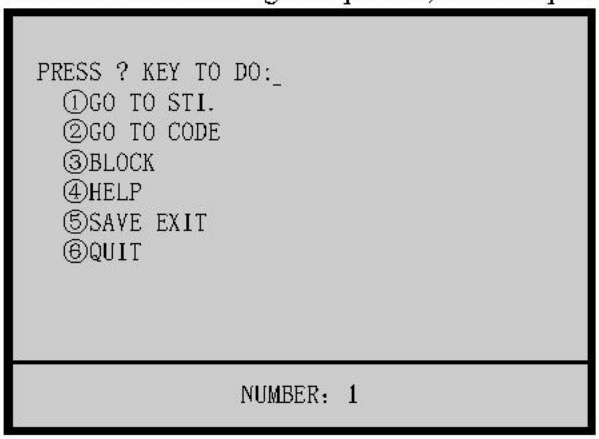
(3) The lower side of screen prompts: "EDIT NEW DESIGN?", you can press "⇧"、"⇩" keys to change [YES] or [NO]. If you select [YES] and press "↵" key, you should input the number of new pattern. If you select [NO] and press "↵" key, then you can select an existent normal pattern for editing.

(4) After editing the pattern (See the following sections), the design management appears.

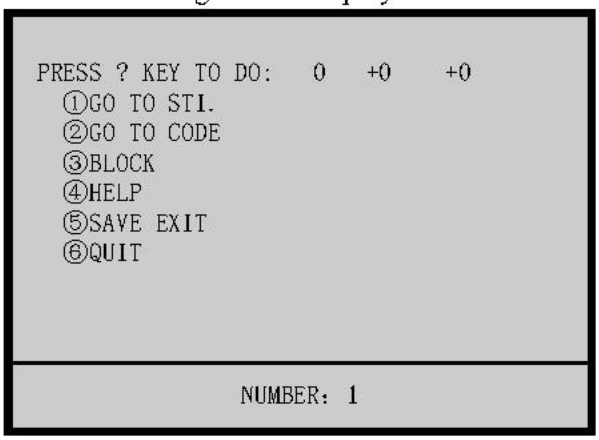
(5) Press "[ ]" or "[ESC]" to end the design management.

14-2 How to Edit a Stitch

After entering to the function of editing new pattern, on the top of the screen will display:



Press "[ ]" and the following will be displayed.



In the above picture every line of data represents a stitch. The first row is the code of the stitch. Its codes are as following. The second row is the value of X (unit: 0.1 mm) and the third row is the value of Y (unit: 0.1 mm).

0 : invalid stitch

3 : satin stitch

4 : jumping

5 : frame jumping

6 : absolute jumping

7 : color-changing

8 : stop

9 : towel embroidery

According to the above, the character of stitch and the values of X and Y can be chosen by pressing digital key directly (If X or Y is negative, press "+/−" key to change into positive number, then press digital key.), and then press "↵" key.

When the cursor move to the next line, it shows one stitch has been edited over.

Press "=" key continuously, then the screen will display:

0 + 0 + 0

0 + 0 +0

0 + 0 + 0

0 + 0 +0

0 + 0 + 0

0 + 0 +0

... ...

Input the value you need to the corresponding position in each line, and press "↵" key. Then the stitch number displayed on the bottom of the screen is the stitch number has been edited. After editing press "ESC" key and select "⑤", then press "↵" key. The new pattern has been edited over.

1. Modifying a stitch

You can use "←", "→", "↑", "↓", "↵" and "PD" 、 "PU" keys to move the cursor, and use digital key to input numeral. It is necessary to point out that the range of X and Y values of stitch length is –127 ~ +127. In case the input value is out of the range, the machine will not confirm this entry. For instance, when changing "+126" to "+63", first move the cursor underneath "+", then press "+/−", "6" and "3" keys.

2. Deleting a stitch

Use "↑", "↓", "PD" 、 "PU" keys to move the cursor underneath the stitch to be

deleted, then press "[D]" key to delete the stitch. And the deleted stitch is stored for using it for inserting a stitch.

3. Inserting a stitch

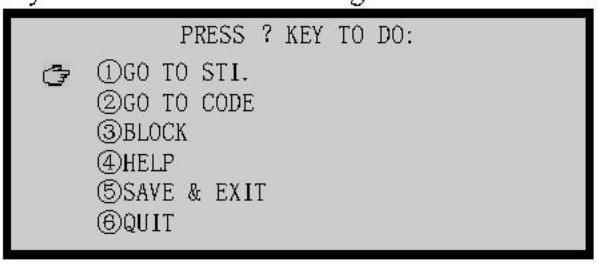
Use "[↑]", "[↓]", "[PD]" 、 "[PU]" keys to move the cursor underneath a stitch, press "[−]" key to insert the last deleted stitch before this stitch.

!!! Attention must be paid that when a pattern requires adding one stitch, inserting a stitch must be used.

14-3 Rapidly Searching a Stitch

Operation:

(1) Press "[?]" key to enter into the following menu:



(2) Press "[↑]"、"[↓]" or digital key"1" to move the cursor to "GO TO STI.", and then press "[↵]" key.

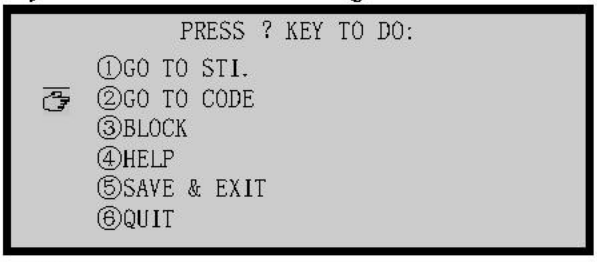
(3) Input the stitch number to which the cursor will go.

(4) The cursor will directly go to the stitch.

14-4 Rapidly Searching a Special Stitch

Operation:

(1) Press "[?]" key to enter into the following menu:



(2) Press "[↑]"、"[↓]" or digital key"2" to move the cursor to "GO TO CODE", and then press "[↵]" key.

(3) Input the code of stitch which the computer will search backwards from the current

stitch.

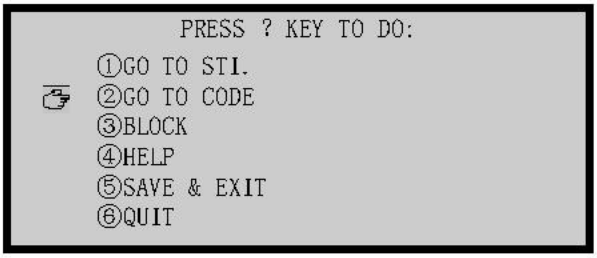
(4) If finding the code, the cursor will directly go to the stitch with this code.

14-5 Block Operation

The block means a part of continuous stitches of the pattern in memory. Its function is intended for performing rapid operations to these continuous stitches: copying, moving, deleting and merging several patterns in memory.

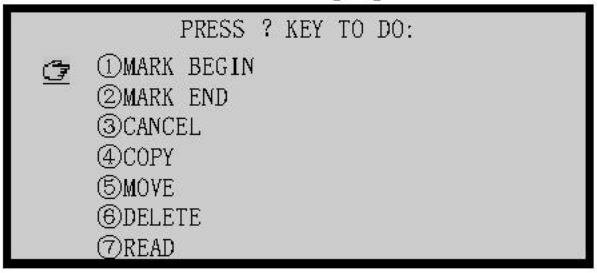
Operation:

(1) Press "[?]" key to enter into the following menu:



(2) Press "⇧"、"⇩" or digital key"3" to move the cursor to "BLOCK", and then press "↵" key.

(3) the block operation menu is as following figure:

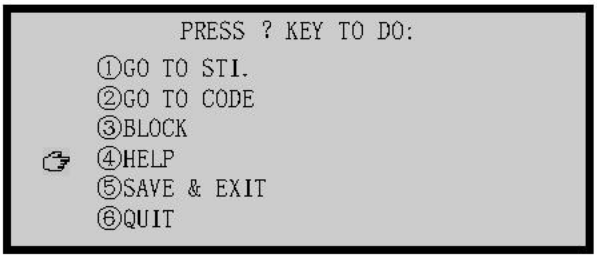


These functions interpret as following: “MARK BEGIN” is defined as block beginning. “MARK END” is defined as block end. “COPY” refers to copy the block to the position of cursor. “MOVE” refers to move the block to the position of cursor. “DELETE” refers to delete all stitches in the block. “READ” means that the machine will take a pattern (you first input the number of pattern) as a block and read the block at end of editing pattern.

14-6 Help for Editing

Operation:

(1) Press "[?]" key to enter into the following menu:



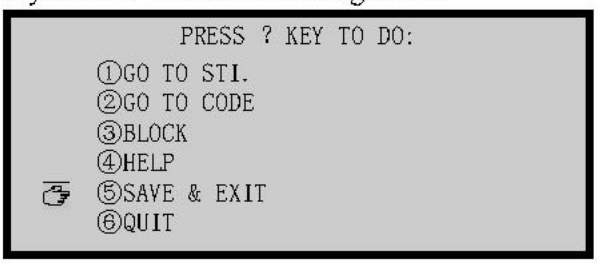
(2) Press "⇧"、"⇩" or digital key"4" to move the cursor to "HELP", and then press "↵" key.

(3) Display the help relating to “HOW TO EDIT A PATTERN”, press any key to end it.

14-7 Saving the Editing Pattern and Exit

Operation:

(1) Press "?" key to enter into the following menu:



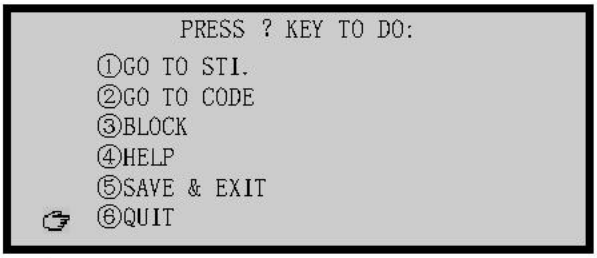
(2) Press "⇧"、"⇩" or digital key"5" to move the cursor to "SAVE & EXIT", and then press "↵" key.

(3) The computer begins to save the pattern, and then exit the editing.

14-8 Quitting the Editing

Operation:

(1) Press "?" key to enter into the following menu:



(2) Press "⇧"、"⇩" or digital key "6" to move the cursor to "QUIT", and then press "↵" key.

(3) The computer prompts you to save the editing pattern, and you can select [YES] or [NO], then press "↵" key to go to the design management operation.

(4) The computer exits the editing.

Chapter 15 Operations Help

This function helps users to perform the operations and displays prompting message.

Operation:

(1) At the main picture, press "[?]" key to enter the help-show frames

(2) Press any key to turn to other frames until exit.

Chapter 16 Monogramming and Making a High-speed Pattern

16-1 Monogramming

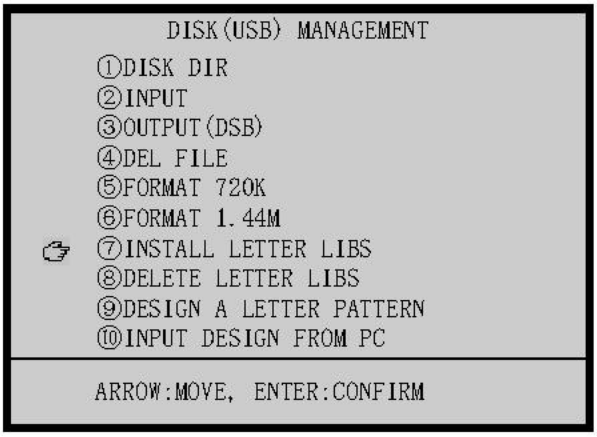
If there is a “Disk of Letter Library” with your embroidery machine, you can embroider any text with 28 fonts at will. In the disk there are 28 kinds of forms of written or printed characters which 26 capital letters of English alphabet, or 26 small letters of English alphabet, or digits 0~9. Users can create monograms in horizontal line, vertical line, or three-point arc.

For the first time, users must install the letter library from “Disk of Letter Library” to memory, which will run out about 200,000 stitches store and can be set free by the operation of “Deleting the letter library”.

1. Installing the letter library

Operation:

(1) Press "[]" key (in embroidery preparation status), the following figure appears:



(2) Press "[]", "[]" or digital key "7" to move the cursor to "INSTALL LETTER LIBS", and then press "[]" key.

(3) Insert the disk of letter library according to the prompt, and press “[]” key.

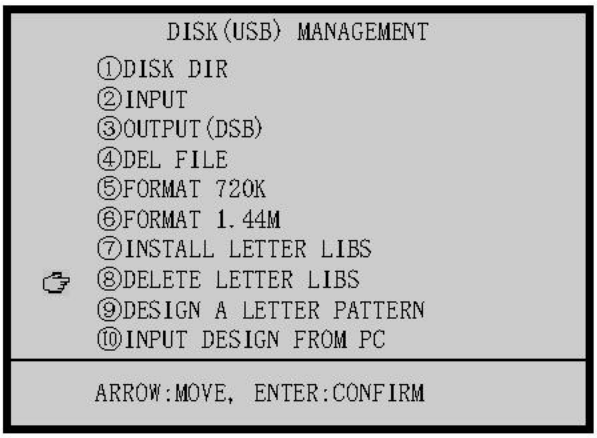
(4) Wait for about 4 minutes to copy files.

(5) Do the operation of “Listing the pattern in memory” (Seeing section 13-2) to check if the letter library is installed correctly. If so it were, the file count should increase by 56. Otherwise do the operation of “Deleting letter library” first and then do this operation again.

2. Deleting letter library

Operation:

(1) Press "[]" key (in embroidery preparation status), the following figure appears:



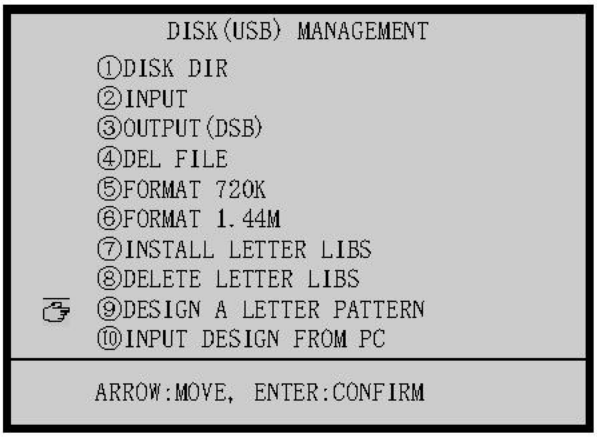
(2) Press "[]"、"[]" or digital key "8" to move the cursor to "DELETE LETTER LIBS", and then press "[]" key.

(3) Press "[]" or "[]" key to select [YES] and press "[]" key to delete the letter library, what will free about 200,000 stitches store.

3. Monogramming

Operation:

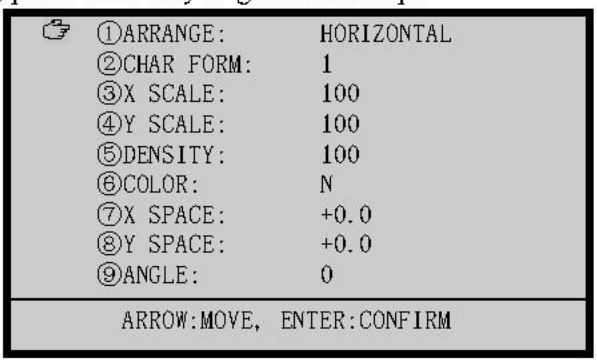
(1) Press "[]" key (in embroidery preparation status), the following figure appears:



(2) Press "[]"、"[]" or digital key "9" to move the cursor to "DESIGN A LETTER PATTERN", and then press "[]" key.(Note: It can not enter into "DESIGN A LETTER PATTERN" if not install letter libs)

(3) Then enter into the setting parameters of the characters as follows figure. After

setting the parameters, press "ESC" key to go to next step.



(4) For the "ARC" arrangement, you should input the interrelated parameters, and press "ESC" key to go to next step after finishing setting the parameters.

(5) Input all the characters according to the characters' code printed on the LCD, and press "↵" key to go on, or press "ESC" key to exit.

(6) The system shows the letter pattern, and you can adjust the letters about their positions, forms, angles, scales, etc. Press "ESC" key to go on.

(7) The system asks you to select [YES] to create the letter pattern, or select [NO] to exit.

(8) The system shows the pattern, and you press "ESC" key to end the showing.

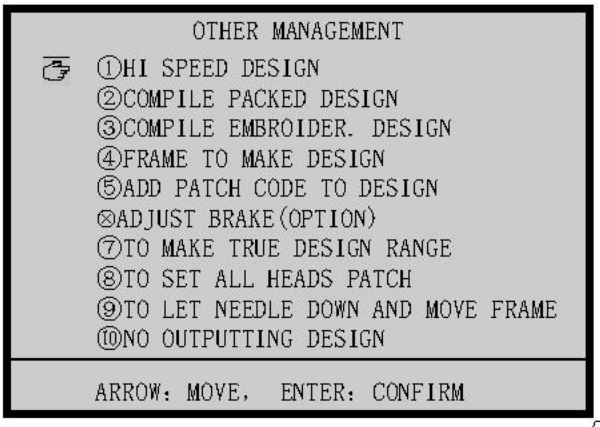
(9) Select "YES" to save the pattern, or select "NO" to give up the pattern.

16-2 Making a High-speed Pattern

If the stitch length is greater than 7.0mm during embroidering, the main shaft speed will slow down. And if you hope it does not occur, you can make a high-speed pattern from the pattern and embroider with the high-speed pattern, which will not make the main shaft slow down.

Operation:

(1) Press "⌨" key, and then press"PD" key, the menu appears as following:



(2) The cursor will be at "HI-SPEED DESIGN", and then press "↵" key.

(3) Select the pattern, and press "↵" key.

(4) Input the number of the new high-speed pattern.

(5) The system will create the new high-speed pattern automatically.

(6) Press the key "ESC" to go to the main picture.

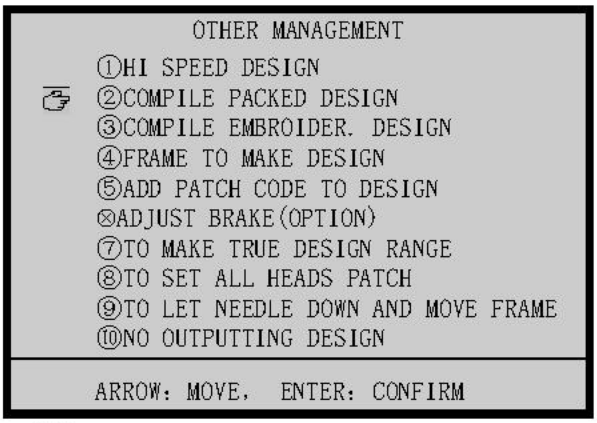
(7) If necessary, embroider the new pattern.

Chapter 17 Compile the Packed Pattern and Embroidering Pattern

17-1 Compile the Packed Pattern

Operation:

(1) Press "[⌨]" key, and then press"[PD]" key, the menu appears as following:



(2) Press "[↑]"、"[↓]" or digital key "2" to move the cursor to "COMPILE PACKED DESIGN", and then press "[↵]" key.

(3) Select the packed pattern which extension name is "PAR", and press "[↵]" key.

(4) Press "[↵]" key to confirm compiling the packed pattern, or press other key to exit.

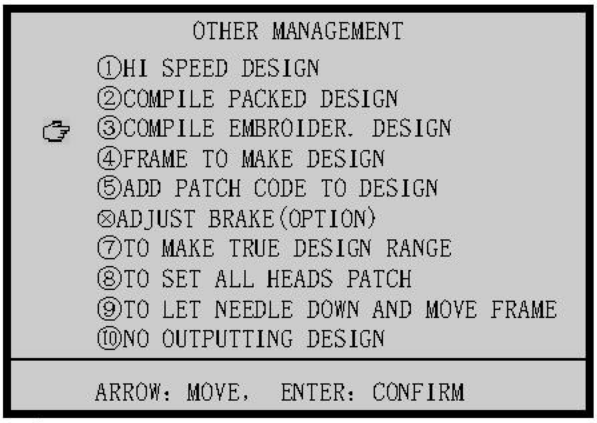
(5) Input the number of new pattern, and the system will create the new normal pattern automatically, which is identical with the packed pattern.

(6) Press "[ESC]" key to go to the main picture.

17-2 Compile the Embroidering Pattern

Operation:

(1) Press "[⌨]" key, and then press "[PD]" key, the menu appears as following:



(2) Press "↑", "↓" or digital key "3" to move the cursor to "COMPILE EMBROIDER. DESIGN", and then press "↵" key.

(3) Press "↵" key to confirm compiling the embroidering pattern, or press other key to exit.

(4) Input the number of new pattern, and the system will create the new normal pattern automatically, which is identical with the embroidering pattern having the embroidering parameters.

(5) Press "ESC" key to go to the main picture.

Chapter 18 Initialize the System Parameters during Electrifying

If some data in the system is illegal by rare chance, which is caused by outside interference or by software bugs, the machine may not work after power-on. To solve this problem, you can initialize the system parameters during electrifying as following:

Operation:

(1) Press and hold "↵" key, and turn on the power of machine.

(2) The system initializes the system parameters and gives a sound, and release off "↵" key, the machine will start working.

Chapter 19 Adding Patch Codes to a Design

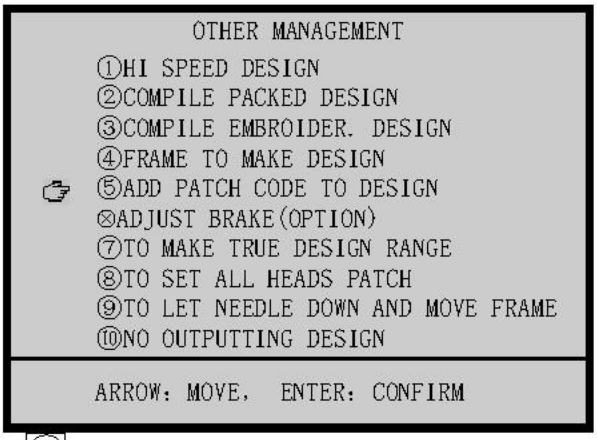
During embroidering, you may want to shift the frame in order to stick a patch expediently. The ways /f shifting frame have: manual frame shifting and auto frame shifting.

Manual frame shifting is done as following: First, the machine automatically stops at a stitch of stop code while embroidering. Second, you shift the frame to the deserved position by pressing the frame-shifting keys, and stick a patch. Then, pressing "[END]" and "[↵]" keys, you will make the frame move to the stop position. Finally, you pull the bar to continue embroidering.

Auto frame shifting is done as following: First, you add patch codes to the design, which is describe in the next paragraph. Then, you select the design and set it into embroidery confirmation status. Again, you set the offset point for this design. Finally, you pull the bar and start to embroider. The machine will pause at a stitch of patch code and automatically shift the frame to the offset point, which will let you stick a patch expediently. You can pull the bar to continue embroidering after stick the patch.

The operation of adding patch codes to a design is as following:

(1) Press "[ ]" key, and then press "[PD]" key, the menu appears as following:



(2) Press "[↑]"、"[↓]" or digital key "3" to move the cursor to "ADD PATCH CODE TO DESIGN", and then press "[↵]" key.

(3) Select the pattern for being added patch code, and press "[↵]" key

(4) According to the prompt, you will be asked to add a patch code for each of color codes and stop codes, or not do so.

(5) Press "[ESC]" key to go to the main picture.

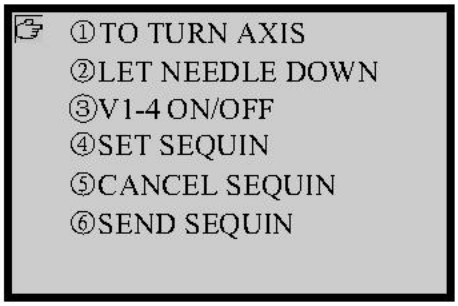
Chapter 20 Turn the Main Axis at 100 Degree Manually

Warning: the operation will rotate the main shaft, and the operator should pay attention to it.

20-1 Turning the Main Shaft Manually

If necessary, you can turn the main axis and make the main shaft stops at 100 degree by manually pressing the keys as following:

(1) Press "M·ORG" key and the following menu appears:

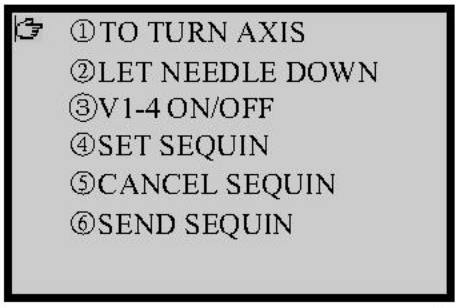


(2) Press "↵" key to turn the main axis at 100 degree, or press other key to quit.

20-2 Let Needle Down

This function is for quilt embroidery. When the needle is in the down position, the embroidery material is fixed and then its position over frame can be changed.

(1) Press "M·ORG" key, the main screen appears as follows:



(2) Select the option "LET NEEDLE DOWN" and press "↵".

(3) The screen shows "PRESS ENTER TO CONTINUE ". Press "↵" and the needle will stick into the embroidery material. (Be careful with this operation.) Or press any other key to exit.

(4) Release the material from the frame with the needle in the material. Now frame moving keys are available. Move the frame to the desired position and press "↵" to confirm.

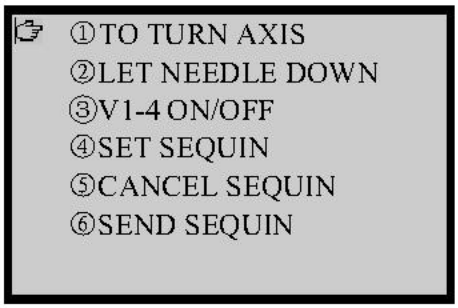
(5) After the operation the needle is still in the low position. The operator can turn the main shaft at 100 degree manually. (Refer to the last chapter)

20-3 Switching the Valves in Quilt Embroidery

This function is for quilt embroidery. The user can switch the four valves on/off according to needs.

Operation:

(1) Press "MANG" key, the main screen appears as follows:



(2) Press "↓" or "3" select "V1-4 ON/OFF" and then press "↵".

(3) Select among valve 1~4 and press "↵" to switch the valve on/off.

(4) Repeat the above 2 steps to set the other valves.

(5) After setting, press "ESC" to exit.

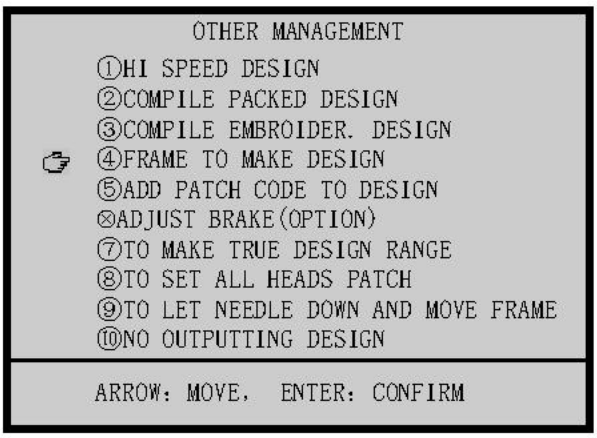
Chapter 21 Shift the Frame to Make a New Design

Sometimes, you want embroider the boundary of a design before embroidering it. The function of "Shift the Frame to Make a New Design" can create such a design, and you can select the new design to embroider the boundary.

Operation:

(1) In embroidery preparation status, shift the frame to the starting point of pattern.

(2) Press "[ ]" key, and then press"[PD]" key, the menu appears as following:



(3) Press "[↑]", "[↓]" or digital key "4" to move the cursor to "FRAME TO MAKE DESIGN", and then press "[↵]" key.

(4) According to the prompt, enter the maximum stitch length.

(5) Shift the frame along the boundary of deserved design, and press "[↵]" key to set the points which are assembled into the pattern trace. Meantime, you can press "[ ]" key to vary the stitch code between satin stitch and jump stitch.

(6) Press "[ESC]" key to end inputting the trace points.

(7) According to the prompt, input the number of new pattern, and press "[↵]" key to create the new pattern.

(8) Press "[ESC]" key to go to the main picture.

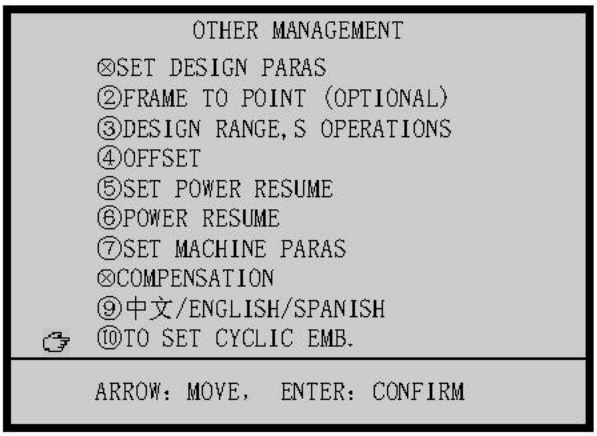
Chapter 22 Setting the Cyclic Embroidering

When the machine is set into the cyclic embroidering, the computer will make the frame return to the starting point and the machine will start embroidering the pattern another time without pulling the bar after the machine has finished embroidering the pattern one time.

This setting will increase the productivity of embroidering.

Operation of setting or canceling of the cyclic embroidering:

(1) Press "[ ]" key, the menu appears as following:



(2) Press "[ ]","[ ]" or digital key "0" to move the cursor to " TO SET CYCLIC EMB.", and then press "[ ]" key.

(3) If the machine is not in the cyclic embroidering, the computer will change it to cyclic embroidering and the icon "[ ]" will appear. Otherwise, the machine will be changed into non-cyclic embroidering and the icon "[ ]" will replace the former icon "[ ]".

(4) The computer will turn to the main picture.

Chapter 23 Adjust the Machine's Braking (for New Machines)

23-1 Summary

This function is designed for adjusting the braking control parameters, so as to let Dahao computer suit different embroidery machines. Moreover the mechanic parts may change a little with time, this function can let the Dahao computer and mechanic parts work together better.

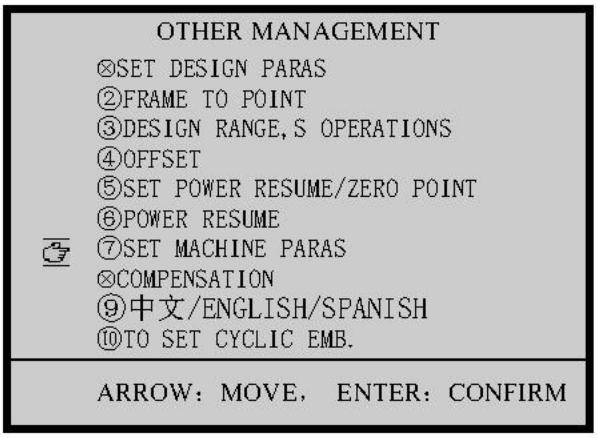
23-2 Setting Parameters "SET BRAKE PARA." and "MAIN MOTOR PARA."

23-2-1 Setting the Parameter "SET BRAKE PARA."

This is to adjust the stop position of main shaft. If the stop position is less than 100 degree, increase the parameter value. If the stop position is larger than 100 degree, decrease the value. The range of the parameter value is form 0 to 30.

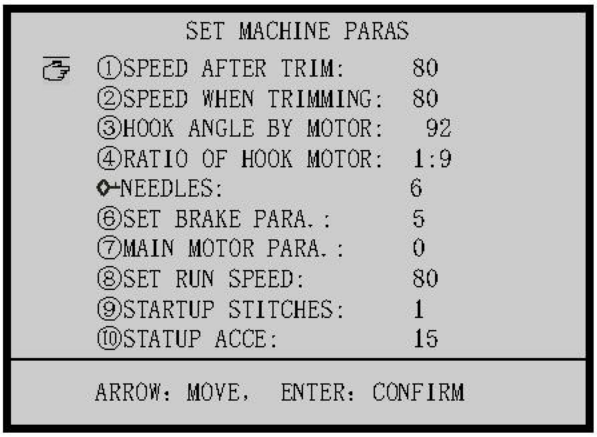
Operation:

(1) Press "[⌙]" key and the following menu appears:



(2) Press"⇩" or "7" to select "SET MACHINE PARAS" and then press "↵" key.

(3) Turn the page until the following menu appears:



(4) Press "⇩"to select "SET BRAKE PARA" and then press "↵" .

(5) Press "⇧"or"⇩"to adjust the parameter value. (When the stop position is less than 100° , increase the value. When the stop position is larger than 100° , decrease the value.)

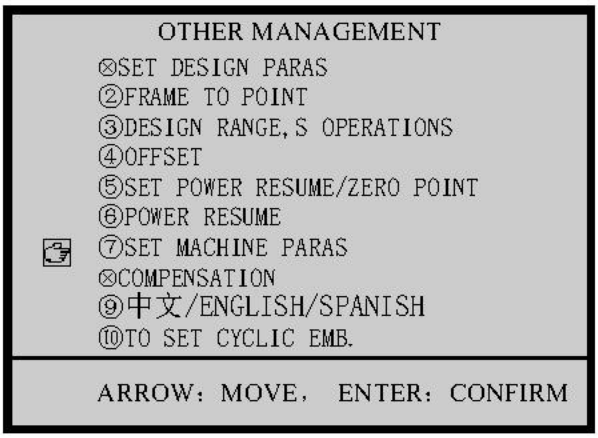
(6) Press "↵" to confirm the setting.

23-2-2 Setting the Parameter "MAIN MOTOR PARA"

This parameter is effective only when the main shaft motor is electromagnetic motor. This setting is use for adjusting the match of the main motor and the mechanical parts. The range of the parameter is form 0 to 30, which default value is 0. During braking, if the main shaft wobbles, quivers, or turn around, you should increase the value. If the main shaft spins too fast, you should decrease the value.

Operation:

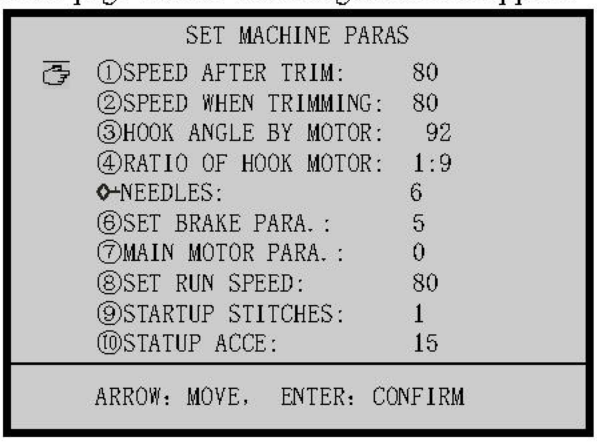
(1) Press "⌨" key and the menu appears as follows:



(2) Press "⇩" or numeric key "7" to move the cursor to "SET MACHINE PARAS", and

then press "↵" key;

(3) Turn to the fourth page and the following menu will appear.



(4) Press "⇩" key to move the cursor to " MAIN MOTOR PARA." then press "↵" key;

(5) Press "⇧"or "⇩" key to change the parameter value.

(6) Press "↵" key to confirm the setting.

(7) Repeat the above adjustment until the machine stops right each time.

23-3 Test for Adjusting the Machine's Braking

After adjusting the machine's braking parameters, you can turn the main shaft manually (refer to chapter 20) to check the result. If the result is not satisfactory, adjust the braking parameters again.

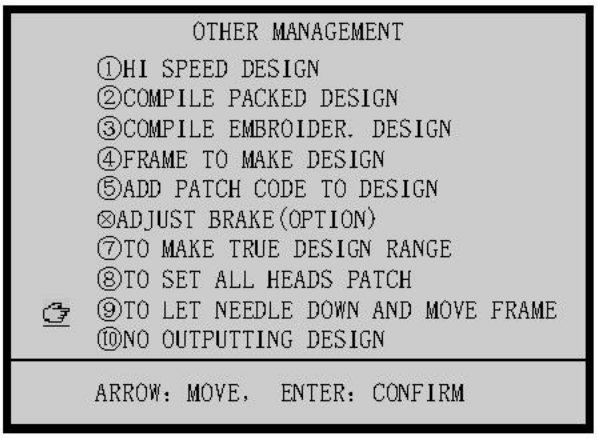
Chapter 24 Let the Needle Sew Down and Move the Frame

Warning: the operation will rotate the main shaft, and the operator should pay attention to it.

The function is intended for special sewing. After the needles sewing down, the needles will fasten the embroidering cloth, and then the operator can loose the cloth from the frame and move the frame, what is for continuous embroidering in the long cloth.

Operation:

(1) Press "[⌂]" key, and then press "[PD]" key, the menu appears as following:



(2) Press "[↑]", "[↓]" or digital key "9" to move the cursor to "TO LET NEEDLE DOWN AND MOVE FRAME", and then press "[↵]" key.

(3) Press "[↵]" key to confirm the operation, or press other key to give up it.

(4) Now, you can move the frame to the desired position. Press "[↵]" key to finish.

(5) After ending the operation, you should turn the main shaft at 100 degree (Seeing chapter 20).

(6) At the moment, you can continue embroidering.

Chapter 25 No Output of the Pattern in Memory

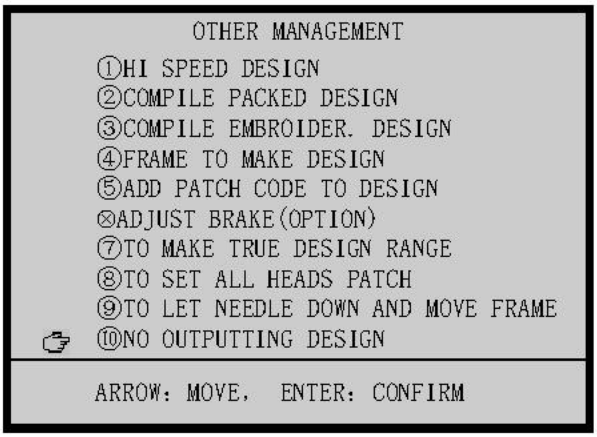
25-1 Summary

The function will prevent the pattern in memory from being copied illegally. In case the user of machine has set a password for "NO OUTPUTTING DESIGN", the other man can not execute the operation of "OUTPUT (DSB)" in disk management menu. If the user want to do the operation, he must cancel the password for "NO OUTPUTTING DESIGN".

25-2 Setting a Password for "NO OUTPUTTING DESIGN"

Operation:

(1) Press "[ ]" key, and then press "[PD]" key, the menu appears as following:



(2) Press "[↑]", "[↓]" or digital key "0" to move the cursor to "NO OUTPUTTING DESIGN", and then press "[↵]" key.

(3) Press "[↵]" key to confirm the operation, or press other key to give up it.

(4) Input a 4-digital password (except for "0", "00", "000", "0000"), press "[↵]" key to finish.

25-3 Canceling the Password for "NO OUTPUTTING DESIGN"

Having set a password, you can do the steps in section 25-2 and input the password to cancel it.

In addition, the computer will cancel the password automatically by executing of the operation of "CLEAR ALL" in design management menu.

Chapter 26 Testing

Note: only experienced maintenance man is permitted do this operation, or you may be injured.

26-1 Computer Testing

This operation is to test the main board circuit and memory bank by computer itself.

26-2 Encoder Testing

This operation is to check the OPL, APL and BPL of the encoder and display the value by turning the main shaft.

26-3 Main Shaft Speed Testing

This operation is to display the set speed and real speed comparatively by turning the main shaft to debug the main shaft board conveniently.

26-4 Mechanical Testing

This operation is to test bar switch, limit switch, head solenoid, thread-trimming solenoid/motor, thread-holding solenoid, thread-catching solenoid/motor and thread break detecting, etc.

26-5 Turn the Main Shaft to Any Angle

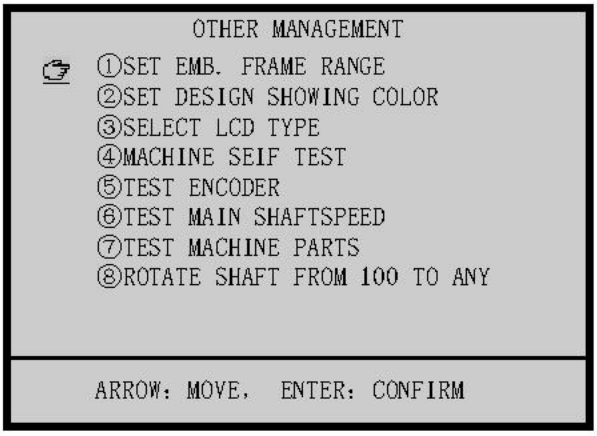
This operation is to turn the main shaft from 100 degree to any angle to maintain and test machine conveniently.

Chapter 27 Setting The Embroidery Frame Range

The function sets the range of the embroidery frame. When the frame is out of this range, the machine will give the prompts: “FRAME OVER LIMIT”.

Operation:

(1) Press "[⌂]" key, and then press "[PD]" key three, the menu appears as following:



(2) Press "[↑]"、"[↓]" or digital key "1" to move the cursor to "SET EMB. FRAME RANGE", and then press "[↵]" key.

(3) The machine will prompt: “MOVE FRAME TO DOWN-LEFT, AND ENTER”. You can press “[←]”、“[→]”、“[↑]”、“[↓]” keys to move the frame to down-left corner. And press "[↵]" key to continue.

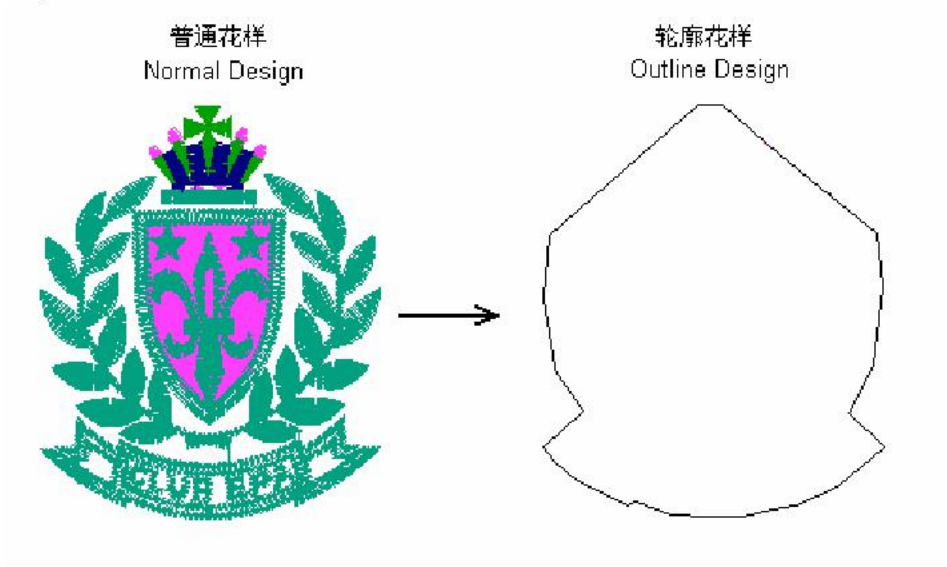
(4) The machine will prompt: “MOVE FRAME TO UP-RIGHT, AND ENTER”. You can press “[←]”、“[→]”、“[↑]”、“[↓]” keys to move the frame to up-right corner. And press "[↵]" key to end.

Chapter 28 Generating The Outline Design

28-1 Summary

This function is for generating the outline design for one normal design, which can be embroidered to dig a hole and fix the embroidering cloth。

For example:

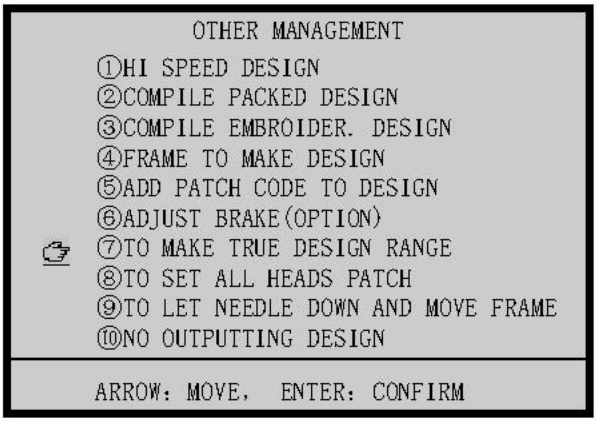


28-2 Generating the outline design

Operation:

1、 Press "  " key, and enter "Mode Management".

2、 Press "  " key, the following menu is prompted:



3、 Press "" or "7" key, to move the cursor to "TO MAKE TRUE DESIGN RANGE" and

press "  " key.

4、 Select one normal design and press "  " .

5、 Input the design No. of outline design.

6、 The outline design is generated automatically.

7、 Press "  " key to exit.

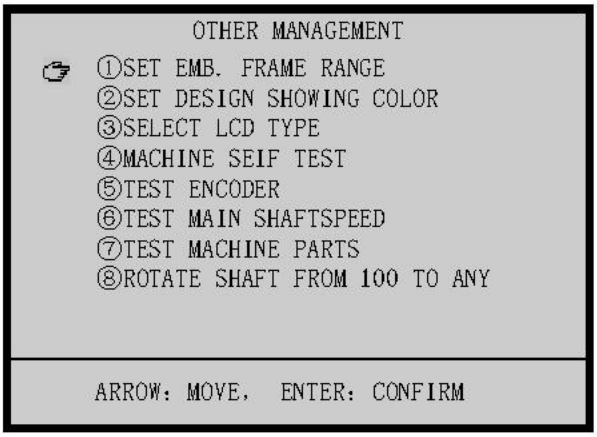
Chapter 29 Select Showing Colors

This function is to set the display colors of stitches. The user can set the parameter according to the real thread color.

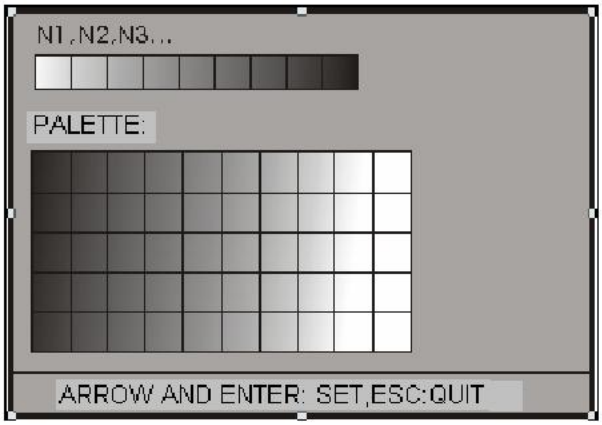
Operation:

1. Press "  " to enter "Other Management".

2. Turn to the third page and the following menu will display:



3. Press "2" to select "SELECT DESIGN SHOWING COLOR" and then press "  " to enter the color adjusting screen.



4. Press the direction keys to select the color and then press "  " to confirm it. Repeat the above procedure to set color for each needle.

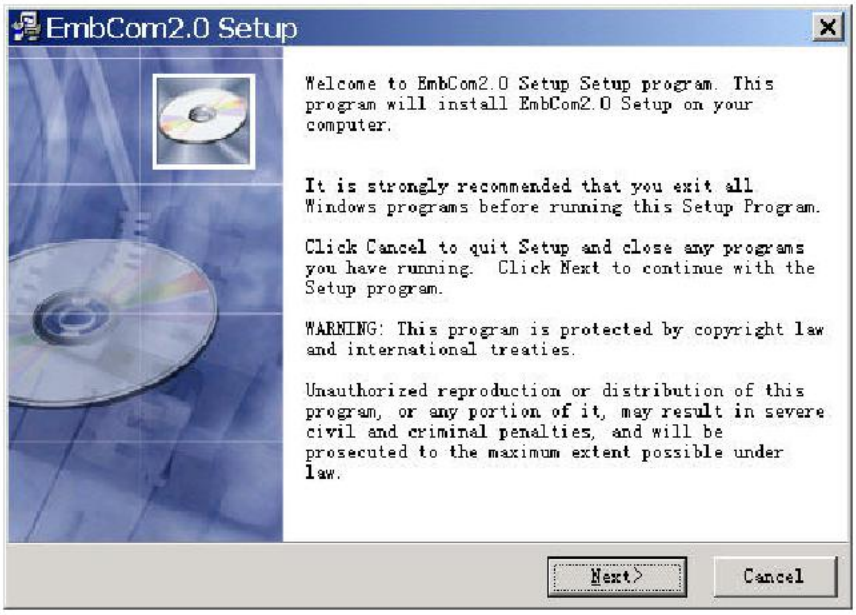
5. After setting, press "  " to exit.

Chapter 30 Manual of Embcom Software

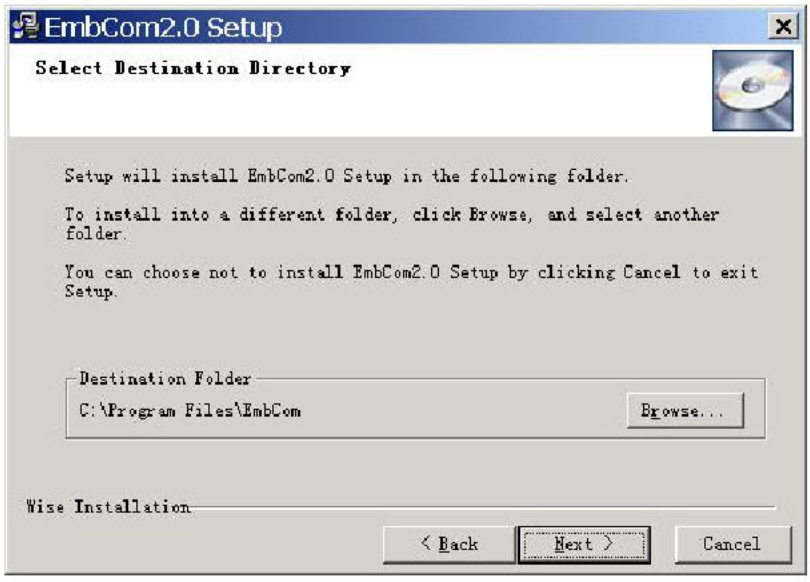
30-1 Installation

Installation procedure:

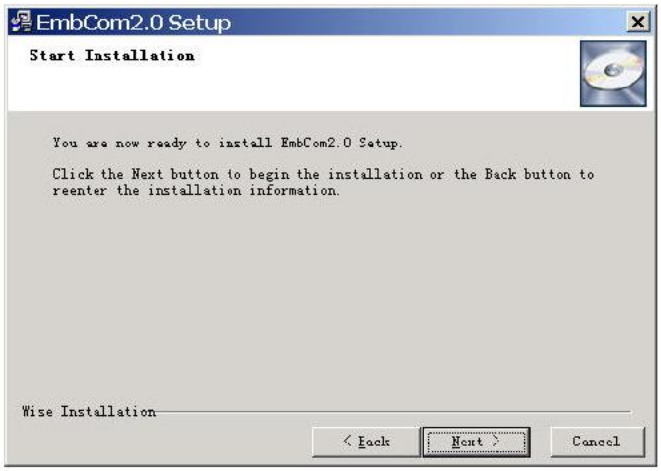
(1) Run the file SETUP.EXE in the Embcom Setup Disk. Click "Next" to continue or click "Cancel" to exit.



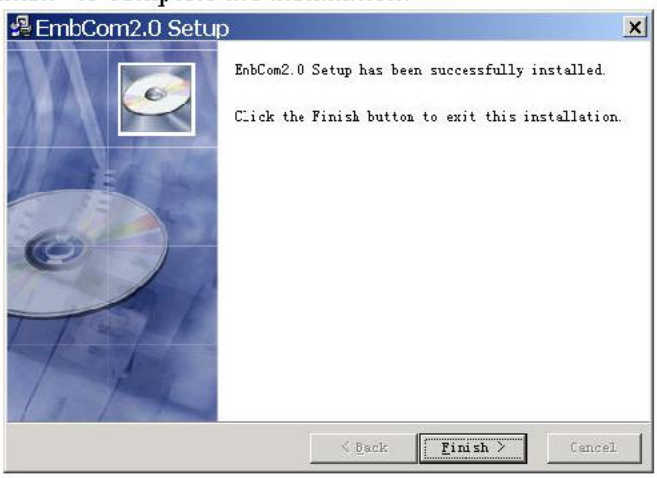
(2) Click "Next>" to select the default destination folder.



(3) Click "Next>" to go on.

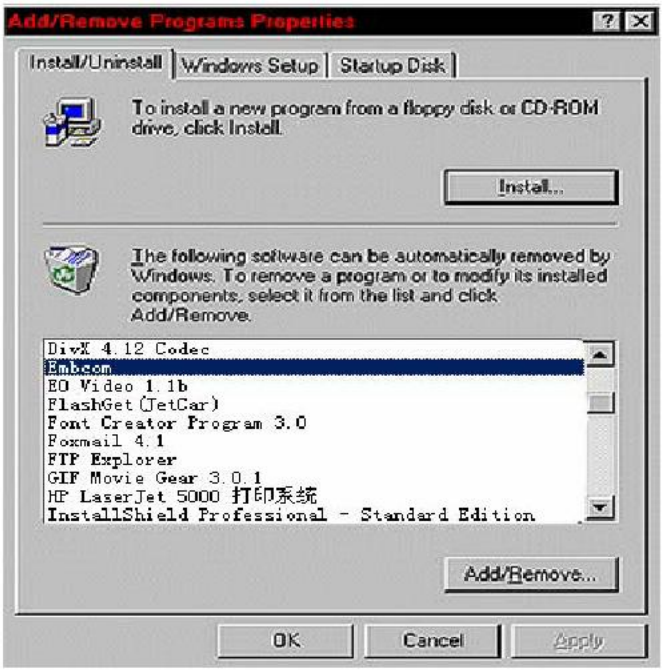


(4) Click "Finish" to complete the installation.

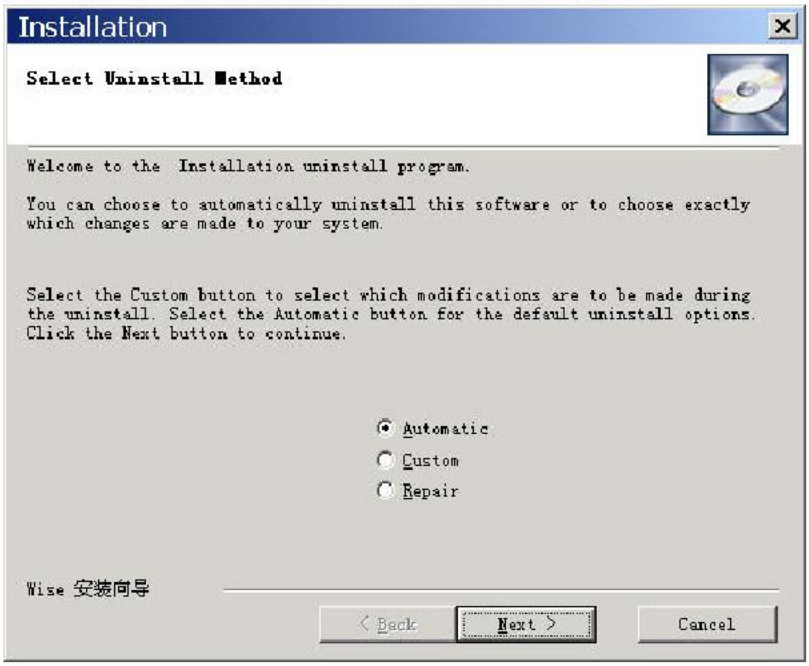


30-2 Uninstall

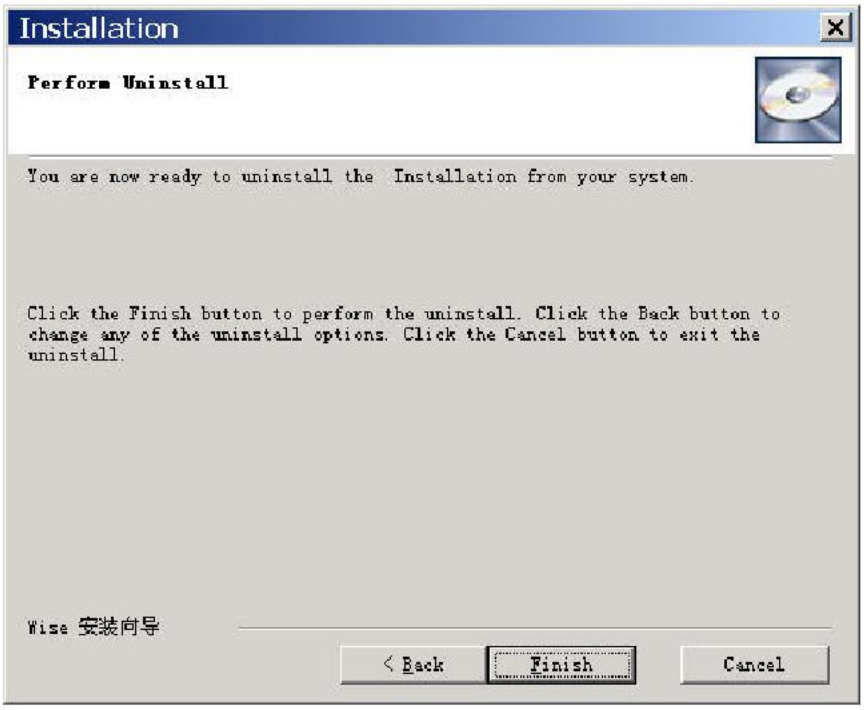
(1) Run "Start->Setup->Control Panel->Add/Remove Programs".



(2) Select "EMBCOM" and click the button "Add/Remove".



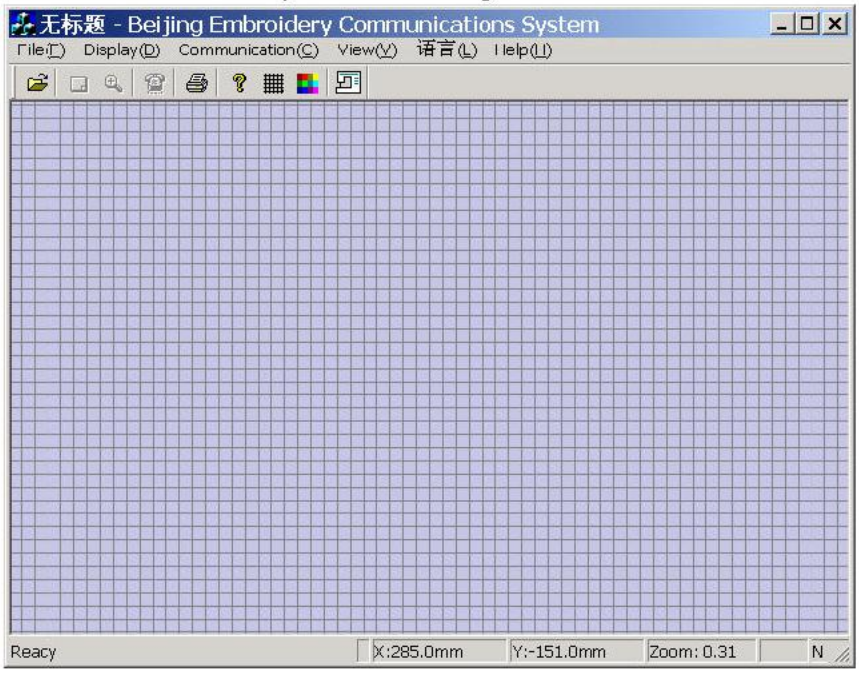
(3) Select "Automatic" and then "Next>".



(4) Click "Finish" to delete the software "Embcom".

30-3 Run and Use the Embcom software

Run the software "EMBCOM" by double-clicking its icon.



(1) Note: When this software is run for the first time, the machine type has to

be set. Click "Communication"-> "select type", and select "BECS-1X8".

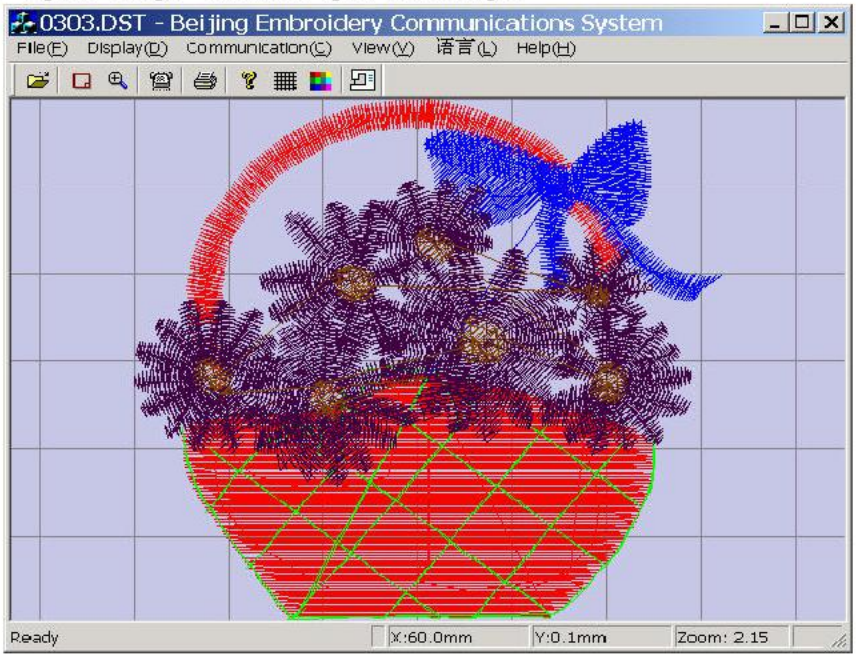
Attention: BECS-X8 is for a machine of BECS-08, 18 or 28.

BECS-X6/1X8 is for a machine of BECS-102/152、202/252、108/158、208/258、128/228、118/218、322、328.

BECS-CX8(compatible TAJIMA 560000) is for a machine of BECS- C18/ 6C18/C88/C98

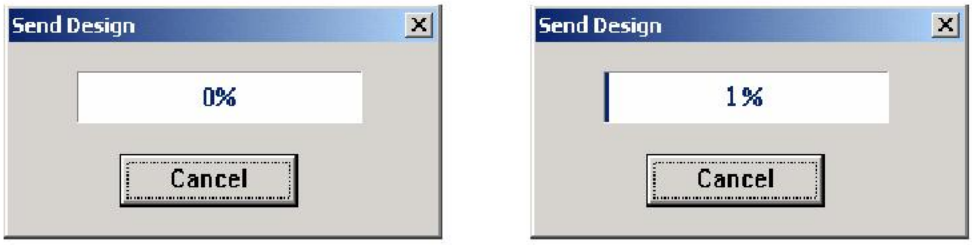
BECS-XX9 is for a machine of BECS-19/1X9/59.

(2) Click "Open Design" button to open one design.



(3) Click the button "Send Design to Machine" and the system will ask: "Machine is ready for receiving?"

(5) (At this moment, the embroidery machine should be ready to receive design. For details, read the next paragraph). Click "  " button to start sending design.



(5)

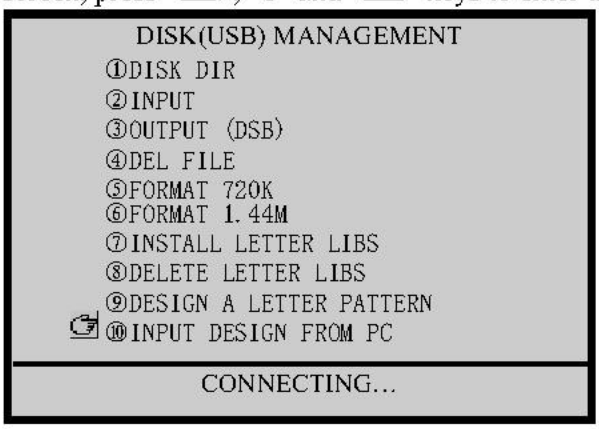
The computer will display the above left picture and the sending of design will be completed when the percentage increases from 1% to 100%. If communication has error or is not ready, the computer will show the above right picture (the percentage remains 0%), or shows: "Error in communication or machine is not ready".

Attentions: if you want to quit the operation during the process, please press Space Key or Enter Key (the mouse is forbidden at the moment).

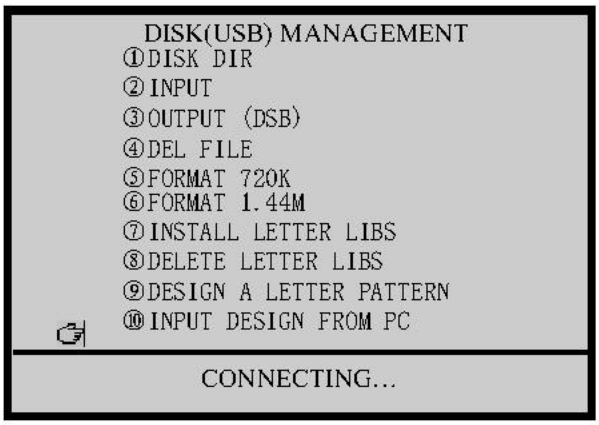
(6) Repeat the above steps to send another design.

30-4 Communication Operation of Embroidery Machine

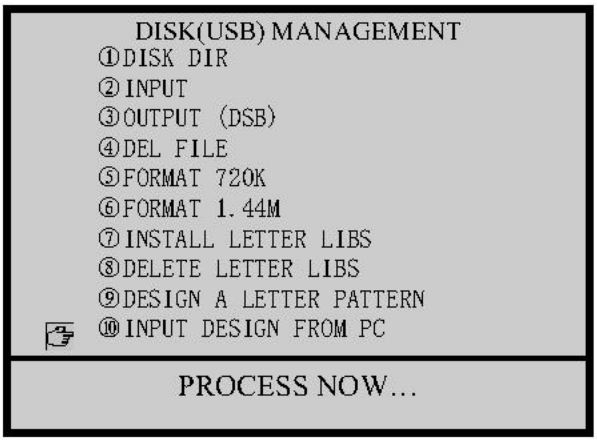
(1) In the main screen, press "[ ]", "0" and "[ ]" keys to enter the operation:



(2) The system will ask to input a new design number. Input a new one and press "[ ]" key to confirm. The machine shows "Connecting…". Wait for the computer communication.



(3) Once the communication starts, the machine will start to receive the new design and prompt "Processing now…".



(4) After receiving the design, the system will return to the "DISK(USB) MANAGEMENT" menu. For communication failure, the machine will show "Communication Fail" which may be caused by: Communication board (Board E806) error, connecting problem between PC and the machine, or receiving/sending software error.

Chapter 31 Sequin Embroidery Operation

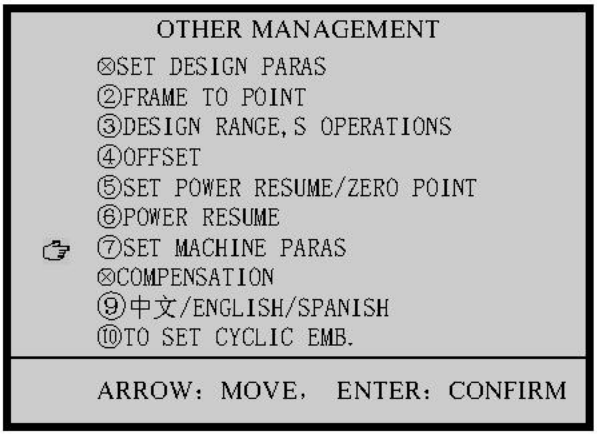
Note: operations and parameters in this chapter are only for machines with sequin embroidery.

31-1 Parameter Setting for Sequin Embroidery

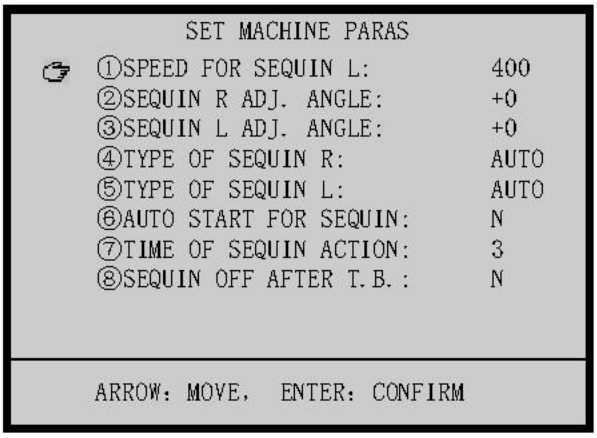
Operation:

1. Press "[menu]" under embroidery preparation status, and the menu "OTHER MANAGEMENT".

2. Select item 7 "SET MACHINE PARAS" and then press "[enter]" to confirm.



3. In the following sub-menu, turn to the seventh and eighth pages, which are parameters of sequin embroidery.



4. Press "[menu]" or "[ESC]" to exit the menu "SET MACHINE PARAS".

5. Press "[menu]" or "[ESC]" to exit the menu "OTHER MANAGEMENT".

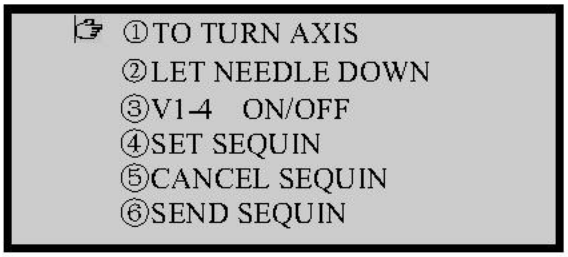
Note: refer to chapter 32 for the parameter chart.

31-2 Manual Operation of Sequin Embroidery

This function is only available for the sequin embroidery machines. Operations include "SET SEQUIN" , "CANCEL SEQUIN" and "SEND SEQUIN"

When the embroidery needle position is on the sequin needle position, the manual operation of sequin embroidery is as follows:

(1) Press the key "" , and the following menu will appear:



(2) Press the key "" or the digital key "4" to select "SET SEQUIN" and press "", and the sequin device will enter the preparation mode.

(3) Press the key "" or the digital key "5" to select "CANCEL SEQUIN" and press "" , and the sequin device will end operation.

(4) Press the key "" or the digital key "6" to select "SEND SEQUIN" and press "" , and the sequin device will begin to deliver a sequin. Press "" to exit.

Chapter 32 Table of the Machine Parameters

Note: Parameter 70~87 are only for machines with sequin embroidery function.

No.	Parameter	Suggested Value	Note
1	FRAME CURVE & ANGLE	F2/260	F1 ~ F6 are frame moving curves. The other figures are starting angles for frame moving.
2	T.B. DETECT	Yes	"Yes": auto detecting in case of thread break "No": no detecting in case of thread break
3	STOP AFTER T.B. DETECT	Yes	"Yes": machine stop after thread break detected "No": machine doesn't stop and the led blinks after thread break detected
4	PRESS KEY AFTER T.B.	No	Press the confirmation key before pulling the bar after thread break detection.
5	T.B. BACK STI.	0	How many stitches to move backward automatically after thread break detect. Choice: 0 ~ 7 stitches,
6	PATCH COUNT (darning)	1	In repairing stitch, how many stitches to do before the stop point. Choice: 1 ~ 10 stitches
7	ACTION AFTER PATCHING (darning)	SLOW	After repairing stitch, the main shaft can be: SLOW,STOP,NO (change)
8	STI. NOT T.B. DETECT	8	Choice: 0 ~ 15stitches. It's 8 if there is bottom thread detect. It's 3 for no bottom thread detect.
9	AUTO ORIGIN	Yes	The frame automatically returns to the origin point after embroidery.
10	INITIALIZE SYSTEM!		Parameters must be initialized for a new machine.
11	T.B. DETECT WHEN JUMP	No	Thread break detect in case jumping stitches. It should be set according to the real needs.

No.	Parameter	Suggested Value	Note
12	JUMP & TRIM	3	Choice: No trim or 1 ~ 7stitches (Trimming when the jumping stitches reach or exceed the set value.)
13	JUMP STITCH SPEED	400	Rotation speed in case jump stitches
14	LOCK STICH WHEN TRIM	Yes	Whether to lock stitch when trimming
15	LOCK NUM. AFTER TRIM	2	Choice: 0 ~ 3。
16	LENGTH OF LOCK STI	0.6	Choice: 0.3 ~ 1.5mm。
17	START FOR SAME COLORS	Yes	"Yes": in embroidery, automatic start in case of the same needle position in color changing order "No": Manual start (it may be used for patching.)
18	STORE MANUAL-COLOR	No	Store the manual color change value into the color change order
19	SEWING EMPTY STITCH	Yes	Usually the empty stitches will be omitted by the computer. If "No", then they won't be omitted.
20	VALUE FOR THICK CLOTH	0	Choice: 0-3 "0" for common cloth Increase the value for thicker cloth
21	MAX. SPEED	700	Choice: 250 ~ 1000 rpm。
22	MIN. SPEED	400	Choice: 250 ~ 600 rpm
23	SHIFT LENGTH	5.0	Choice: 1 ~ 10 Speed decreases when the stitch length is larger than this.
24	TURN OFF TRIMMING	No	Yes: shut down trimming function No: turn on trimming function
25	TRIM MODE	3	Choice: 1 ~ 8 "1" is the shortest
26	ACTION AFTER TRIM	Y	Frame to X/Y, move needle

No.	Parameter	Suggested Value	Note
27	FRAME AFTER TRIM	No	Frame moving after trimming
28	CHECK TRIM IS OK	Yes	For common trimming, "Yes" for machine with sensor For collective trimming it must be "Yes".
29	ROUNDS FOR BRAKE	2	"2" for electromagnetic motor "1" for miniature machines or servo main shaft motor
30	STITCHES AFTER TRIM	2	Slow stitches when pulling bar after trimming Choice: 1 ~ 7
31	SPEED AFTER TRIM	80	Rotation speed for lock stitch
32	SPEED WHEN TRIMMING	80	Main shaft speed when trimming Choice: 80 ~ 250 rpm
33	HOOK ANGLE BY MOTOR	0	Choice: -100~+100 The angle increases with the set value.
34	Hook Ratio by Motor		Choice: 1:9, 1:10, 1:12, 1:15, 1:18, 1:20
35	NEEDLES	6	It must be the same with the needles in machine.
36	SET BRAKE PARA.	0 or 9	Choice: 0 ~ 30 9 for electromagnetic motor main shaft/5 ~ 7 for servo motor main shaft When the stop position is over 100°, decrease the value. When the stop position is less than 100°, increase the value.
37	MAIN MOTOR PARA.	1	Choice: 0 ~ 30 It's only for electromagnetic motor. Increase this parameter value to avoid main shaft vibration during braking. Usually it's set as 1.
38	SET RUN SPEED	80	Choice: 80、90、100、110、120、130、140、150rpm

No.	Parameter	Suggested Value	Note
39	STARTUP STITCHES	1	Slow stitches before acceleration in starting Choice: 1~9
40	STARTUP ACCE	12	Choice: 1 ~ 30 acceleration speed after pulling bar
41	SPEED OF SLOW EMB.	400	Shaft speed when pull bar right
42	COLOR-CHANGE SPEED	12	It's valid only when the color-changing motor is stepping motor. The larger the value, the faster the color-changing speed.
43	ADJUSTHEADSOLENOID	0	Choice: 0 ~ 30 Voltage of head solenoid
44	PARA. OF NEEDLE DOWN	15	Choice: 0-30 stopping angle of main shaft
45	RATIO OF AC INDUCTION	0	Choice: -15 ~ +15
46 ~49	DIP1—DIP4		For future use
50	DISPLAY STI. OR NOT	Yes	Display stitch count
51	OVERFRAME BY STEP	No	By step or continuous
52	SPEEDWHEN OVERFRAME	16	Speed of overframe
53	HIGH FRAMING SPEED	16	Choice: 1 ~ 30 speed of fast moving frame
54	LOW FRAMING SPEED	12	Choice: 1 ~ 30 speed of slow moving frame
55	STOP TO COLR	No	Transfer stop codes to color-change codes in reading disk files. Only for some countries/regions
56	BORING NEEDLE	No	The boring needle number "No" for no boring embroidery No thread break detect, trimming, or lock stitch for the boring needle
57	BORING EMB. DISP.(mm)	0/12	Location of boring knife: 0mm or 12mm
58	CORD EMB. NEEDLE	No	The cord embroidery needle number

No.	Parameter	Suggested Value	Note
59	SPEED FOR CORD EMB.	400	Speed limit for cord embroidery Choice: 300-600rpm
60	(AFC) Use	No	Choose "Yes" for automatic frame changer(AFC)
61	(AFC) Interval Time	3	Choice: 0 ~ 15 Interval time between (AFC) valve actions
62	STOP OK bef. PULL BAR		Pulling bar is available only after the main shaft stops at 100 degree.
63	ADJ. STARTUP HOLDING	0	Please adjust this value in case the bottom thread cannot be taken up at the time of startup.
64	DETECT T.B. MODE	1	Choice: 1,2 Mode 1 uses the common take-up spring. Mode 2 uses the chopping wheel
65	STL FOR FILTER T.B	3	Choice: 0~2
66	SLOW STL AFTER PATCH		Choice: 0~9999
67	SPEED AFTER PATCH		Choice: 80-maximum speed
68	LOCK NUM. BEFORE TRIM	2	Choice: 0~2
69	LOCK LEN. BEFORE TRIM	0.7	Choice: 0.3~1.5
70	SEQUIN R ON/OFF	0	Choice: 0（off），1（low position needle, the first needle）
71	SEQUIN L ON/OFF	0	Choice: 0（off），N（high position needle, the needle N）
72	SPEED FOR SEQUIN R	350rpm	Choice: 300-600rpm the highest speed of sequin embroidery
73	SPEED FOR SEQUIN L	350rpm	Choice: 300-600rpm the highest speed of sequin embroidery
74	SEQUIN R ADJ. ANGLE		Sequin delivery angle adjustment: -15~+15。

No.	Parameter	Suggested Value	Note
75	SEQUIN L ADJ. ANGLE		Sequin delivery angle adjustment: -15~+30。
76	TYPE OF SEQUIN R		Choice: Single, double
77	TYPE OF SEQUIN L		Choice: single, double
78	AUTO START FOR SEQUIN	No	Auto startup or manual startup (pulling bar)
79	TIME OF SEQUIN ACTION	3	Choice: 0-15 "2 ~ 3" for air valve presser foot/"4 ~ 5"for stepping motor presser foot
80	SEQUIN OFF AFTER T.B.	No	Control the sequin device position after thread break
81	SEQUIN OFF NO-TRIM-JUMP	N	Choice: Y(YES), N(NO)
82	LOCK SHAFT WHEN STOP	N	Choice: Y(YES), N(NO)
83	SPEED 1 PRE-TRIM	400	Choice: 60~600
84	SPEED 2 PRE-TRIM	400	Choice: 60~600
85	STARTUP FILTER EMPTY	Y	Choice: Y(YES), N(NO)
86	BUZZING AFTER T.B	N	Choice: Y(YES), N(NO)
87	STATIC TRIM ANGLE	86	Choice: 86,100

Appendix: All Functions in Different Modes

	Functions \ Phases	Press Key Instantly	Preparing Mode	Confirm Mode	Running Mode
1	Begin embroidering by pulling bar			✓	✓(80 revolutions)
2	Stop embroidering by pulling bar			✓ (return)	✓
3	See often-used parameters		✓	✓	
4	Set normal embroidery and idling		✓	✓	
5	Set automatic color changing and beginning		✓	✓	
6	Set design direction		✓		
7	Set the sequence of automatic color changing		✓	✓	
8	See the options help		✓	✓	
9	Normal or reverse display of status line		✓	✓	
10	Frame returning to the origin point		✓	✓	
11	Frame returning to stop-embroidery point			✓	
12	Manual thread trimming		✓	✓	
13	Set main shaft acceleration speed		✓	✓	✓
14	Set main shaft deceleration speed		✓	✓	✓
15	Manual color-change (needle-change)		✓	✓	
16	Turn the main shaft at 100 degree manually		✓	✓	
17	Clear stitch count and frame		✓	✓	

	Functions \ Phases	Press Key Instantly	Preparing Mode	Confirm Mode	Running Mode
	displacement				
18	Manual frame shifting		✓	✓	
19	Set the speed of manual frame shifting		✓	✓	
20	Set the embroidery confirmation			✓	
21	Release embroidery confirmation		✓		
22	Disk directory **(22-30 DISK MANAGEMENT)		✓		
23	INPUT Input pattern from disk to memory		✓		
24	OUTPUT (DSB) Output patterns from memory to disk		✓		
25	DEL FILE Deleting disk files		✓		
26	FORMAT 720K Formatting a 720KB diskette		✓		
27	FORMAT 1.44M Formatting a 1.44MB diskette		✓		
28	INSTALL LETTER LIBS Installing the letter library		✓		
29	DELETE LETTER LIBS Deleting the letter library		✓		
30	DESIGN A LETTER PATTERN		✓		
31	SELECT DESIGN FOR EMB. **(31-40 DESIGN MANAGEMENT)		✓		

	Phases / Functions	Press Key Instantly	Preparing Mode	Confirm Mode	Running Mode
32	SHOW MEMORY DESIGN		✓		
33	DISK INPUT Input a design into memory from floppy/USB disk		✓		
34	COPY Copy the patterns in memory		✓		
35	EDIT Edit the patterns in memory		✓		
36	DELETE Delete the patterns in memory		✓		
37	DIVIDE Divide the pattern in memory		✓		
38	COMBINE Combine the patterns in memory		✓		
39	PACKED DESIGN Edit the packed pattern		✓		
40	CLEAR ALL Clear all patterns in memory		✓		
41	SET DESIGN PARAS (parameters) **(41-56 OTHER MANAGEMENT)			✓	
42	FRAME TO POINT			✓	
43	DESIGN RANGE'S OPERATIONS			✓	
44	OFFSET			✓	
45	SET POWER RESUME			✓	

	Phases / Functions	Press Key Instantly	Preparing Mode	Confirm Mode	Running Mode
46	POWER RESUME		✓	✓	
47	SET MACHINE PARAS		✓	✓	
48	COMPENSATION		✓		
49	DHINESE/ENGLISH		✓	✓	
50	TO SET CYCLE EMB. ON/OFF		✓	✓	
51	HI-SPEED DESIGN		✓	✓	
52	COMPILE PACKED DESIGN		✓	✓	
53	COMPILE EMBROIDER. DESIGN		✓	✓	
54	FRAME TO MAKE DESIGN		✓		
55	ADD PATCH CODE TO DESIGN		✓	✓	
56	ADJUST BRAKE		✓	✓	