Contents

Part 1 Introduction of the Control System

1.1 System Summary

Thank you very much for using our computerized embroidery machine control system!

This system can be applied to variety of embroidery machines to meet different requirements of yours, it will provide you with satisfactory effect for thin and thick materials as well as 3D embroidery!

The advanced DSP control technology makes the system work faster, the friendly man-machine interface of the system effectively improves the productivity; This control system adopts smooth curve regulation, which makes the machine running more stable, reduces the noise and extends the service life of the machine!

Please read carefully this Manual before using so as to ensure correct operation of the system.

Please keep this Manual properly for future reference.

Due to the difference of configuration, some machines may not be equipped with some functions listed herein, please follow corresponding functions.

1.2 Precautions

Non-professional personnel can never be allowed to carry out maintenance and debugging of the electric system, or the safety performance of the equipment will be reduced, the malfunction will be more serious, and even personnel and property damage will be caused.

Some parts in the case are with high tension, in order to avoid any accidental damage, when the system is powered on, do not open the cover of the case.

Please replace the protective tube strictly in accordance with the identification of the product to ensure personal and property safety.

The power switch of this product is provided with over-current protection, in case the over-current protection switch acts, it will not be closed again until 3 minutes later.

The floppy drive is a precision device, please always remember to insert the disc in the right direction, to avoid damage of the disc or the drive, do not eject or insert the disc during reading or write of the disc (when the floppy disc indicator is on). As the disc is made of magnetic material, it should be kept away form any magnetic field to avoid damage of the disc or loss of the data.

Do not pile up sundries around the control box, and during the operation, the surface of the

control box and the filter mesh should be cleaned regularly to keep fine ventilation of the system and facilitate the cooling.

Do not modify the product without authorization of the company; the company should bear no responsibility for any consequence resulted therefrom!

Warning

If it's necessary to open the cover of the case, do not touch any part in the electric cabinet unless you are under direction of professional personnel and the power has been turned off for over 5 minutes!

Prohibitions

Do not touch any moving part or open the control device during operation of the machine, otherwise, it may cause personal damage or abnormal operation of the machine!

It is prohibited to operate any electrical equipment in damp location or environments with dust, corrosive, flammable or explosive gases, otherwise, it may cause electric shock or fire!

1.3 Working Environment

Ventilating and sanitary environment with little dust;

Working Temperature: 5-40°;

Working RH: 30%-90%, no frost.

1.4 System Power Supply and Grounding

This electric control system can use the following power supplies:

 AC100-240V/50-60HZ

The consumption power is about 300W .

To avoid electric shock or fire due to leakage of electricity, over-voltage or insulation etc., please ground the electric control system reliably.

1.5 Control Panel keypads function

1.5-1 Functions of Keys

0 - **9** Numeric keys: Manual color changing in the embroidery patter status, changing data in the selected area in any other status.

+/- Value switching: switching to full screen browse of patterns in memory; switching the coordinate display of the origin of the pattern and the embroidery frame in the Embroidering pattern status; changing the positive-negative value of the data in the selected area in any other

status.

🔑 Key: Used for machines with over 9 needles, it is used for manual changing of color or setting of the color changing needles in the Embroidering pattern status and for jumping transition when creating a new patter by shifting the frame. When shifting frame to create flower pattern, used for needle skip

CL Clearing: clearing statistics and displacement of the embroidery frame in the Embroidering pattern status, clearing values in any other number inputting menu.

⏩ Select: selecting the speed for shifting the frame and rising/descending the man shaft in the Embroidering pattern status; when setting color changing, it can be used to select whether to enable the patching embroidery function; in any status, it can be used to select variable set values.

△ ▽ ◁ ▷ Arrow keys: shifting the embroidery frame in the Embroidering pattern status; in any other status, use the Up and Down keys to shift line and the Left and Right key to switch menus.

Inching: used for inching operation of the main shaft.

Color changing mode switching: selecting which mode of color changing during the embroidering.

Color changing setting: setting the order of color changing and frame shifting for patching offset.

Idling switching: in the Embroidering pattern status, it is used to switch between normal embroidery and high/low-speed idling.

Rotating direction: in the Embroidery Preparation Status, it is used to select the rotating direction of the pattern.

Origin operation: in the Embroidering pattern status, it is used for setting and returning to the origin as well as returning to the offset point and the limit checking.

Returning to the stop point: returning to the stop point after manually shifting the frame during the embroidery.

— Speed up/down and page up/down: in the main shaft rotating speed testing in the

Embroidering pattern status and the Embroidery Running Status, they are used to increase and decrease the speed rotating of the main shaft. In multi-window operation, they are used to turn pages up and down.

Manual trimming: manual trimming operations in the Embroidering pattern status.

Auxiliary functions: used in any status to carry out some auxiliary operations for the embroidery, e.g., magnifying and rotating the pattern, embroidering the beeline, setting the embroidering parameters, mechanical parameters as well as user management etc..

Pattern management: managing patterns in memory and exporting patterns in the Embroidery Preparation Status and the Embroidering pattern status.

hat frame switch; switch between hat frame and adult clothes frame

Embroidery preparation key: switching between the Embroidery Preparation Status and the Embroidering pattern status.

ESC Esc key: quitting the current operation and returning to the parent operation status.

confirm key: confirming completion of the current operation.

1.5-2 Displaying Icons

Starting point or offset point not defined

Offset point defined

Starting point defined

Auto color changing and automatically starting embroidery

Auto color changing and manually starting embroidery

Manual color changing and manually starting embroidery

(Changing) embroidering pattern

(Flashing) stopped upon thread breakage

Start and stop

Pattern embroidery completed

⬇ Low-speed idling

⬇ High-speed idling

👕 adult clothes embroidering

◯ hat frame embroidering

⬚ internet connecting

⬚ internet connecting break

►► High-speed frame shifting (speed up) mode

► Low-speed frame shifting (speed up) mode

AX/AY: Displaying the coordinates of the origin corresponding to the pattern

PX/PY: Displaying the coordinates of the origin corresponding to the embroidery frame

1.5-3 Functions

This system has friendly man-machine interface and the operations are simple with powerful functions, which can greatly facilitate the operations of the user and improve the performance and efficiency.

It supports multiple languages and the user can switch the language for operation at any time as required.

With large memory capacity, the system can store 1 million stitches and 200 patterns, as required by the user, it can be extended to 2 million stitches and 200 patterns (special order is required).

Multiple means for pattern importing greatly facilitate the user for selection and operation. Pattern importing is available with 3.5" disc, u-disc connected with PC (supporting PC software required).

This system supports multiple formats of pattern files and can recognize DST of Tajima and of Barudan DSB, etc..

Strong parameter adjustment functions enable you to adjust various parameters according to different requirements to achieve the system control performance you need.

In case of power cut, the function of "Auto Restoring embroidery after power cut" enables the machine to continue embroidering from the stitches just before the power cut, you need not worry about displacement of patterns and realign the positions.

The "Self-checking of devices" function enables checking of the status and parameters of external devices and facilitates adjustment and maintenance.
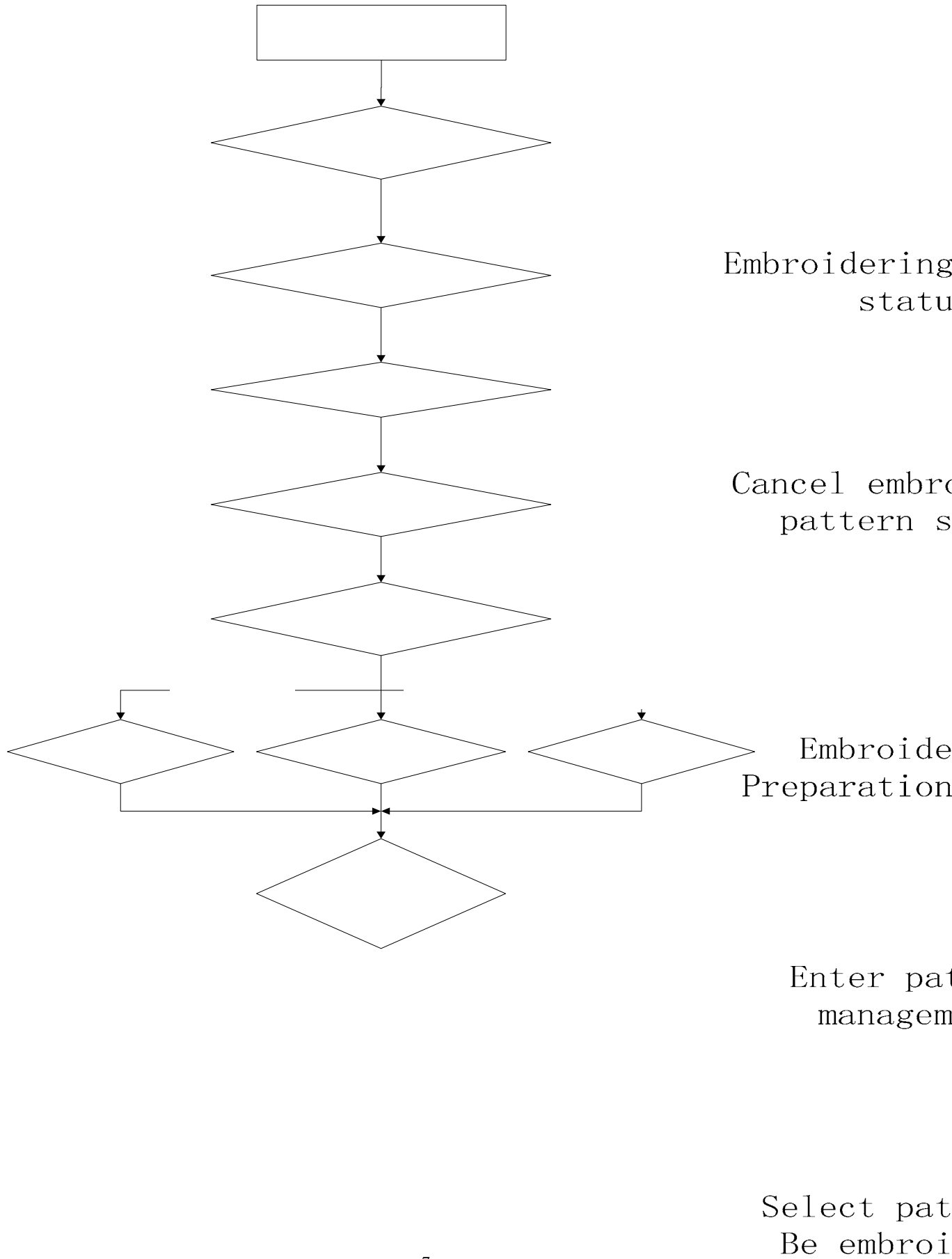
The "Main shaft stop position adjustment" function (slippage motor) enables the user to adjust parameters of the system according to the characteristics of the embroidery machine to achieve correct stop position.
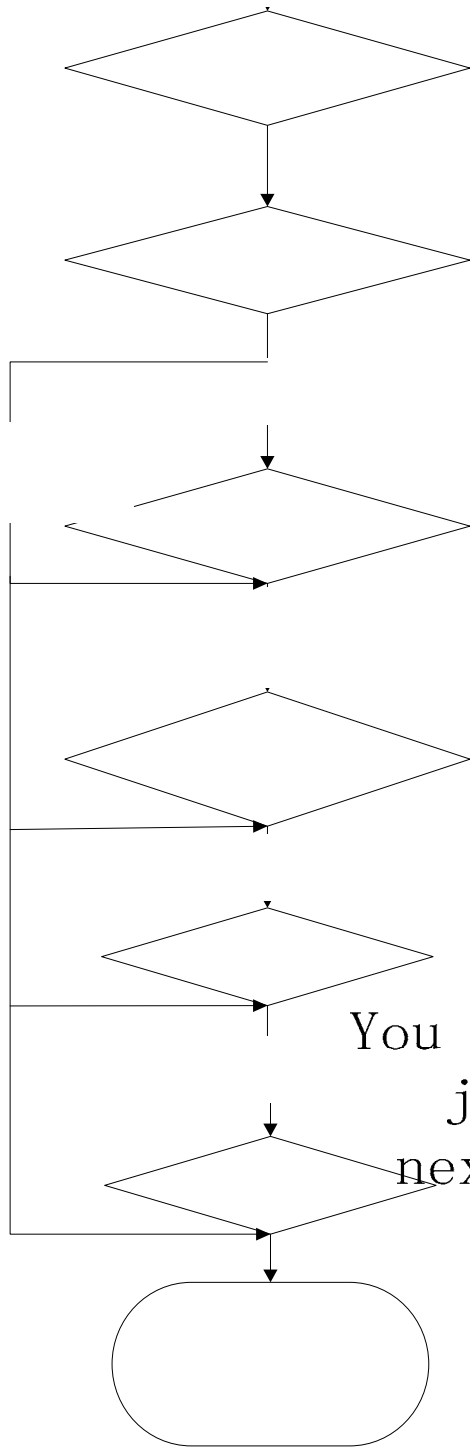
The "Auto memorizing of embroidery pattern parameters" function can automatically store the preset embroidering parameters or related data of embroidered patterns, including color changing, the origin, the offset point, embroidering parameters and repetition etc., so as to facilitate the embroidery of the next time.

The "Patching offset" function enables the user to set any color changing needle to shift the frame in patching embroidery to facilitate the patching embroidery.

The precise pattern beeline embroidering functions can meet you requirements for locating pattern embroidery.

Part 2 Embroidering Flow

Embroidering
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Cancel embro
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Embroide
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Enter pat
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Select pat
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Set
Pint

If it'
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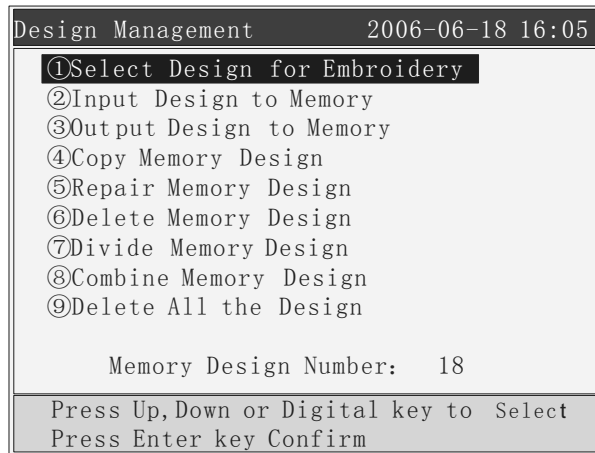
You can directly
jump to the
next operation   Pat
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Part 3 Pattern Management

Pattern Management includes pattern selection (disabled in embroidery status), pattern display, pattern importing, pattern copying, pattern combination, pattern partion, pattern offset , pattern deletion, deleting all patterns (disabled in embroidery status).
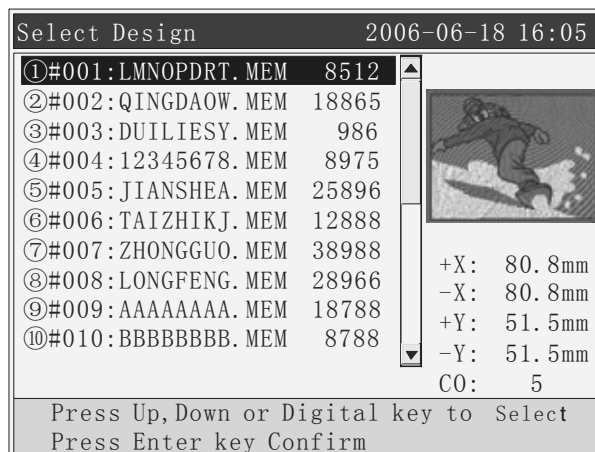
In the Embroidery Preparation or Embroidering Pattern status, press 🈸 to enter the Pattern Management menu, see the figure below:

```
Design Management          2006-06-18 16:05
  ①Select Design for Embroidery
  ②Input Design to Memory
  ③Output Design to Memory
  ④Copy Memory Design
  ⑤Repair Memory Design
  ⑥Delete Memory Design
  ⑦Divide Memory Design
  ⑧Combine Memory Design
  ⑨Delete All the Design

     Memory Design Number:   18

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

3.1 Selecting Patterns for Embroidery

Pattern selection is only available in Embroidery Preparation Status.

In the Pattern Management menu, press ▲ ▼ to move the cursor or ① to select the operation and then press ↵, see the figure below:

```
Select Design              2006-06-18 16:05
 ①#001:LMNOPDRT.MEM    8512  ▲
 ②#002:QINGDAOW.MEM   18865
 ③#003:DUILIESY.MEM     986
 ④#004:12345678.MEM    8975
 ⑤#005:JIANSHEA.MEM   25896
 ⑥#006:TAIZHIKJ.MEM   12888
 ⑦#007:ZHONGGUO.MEM   38988
 ⑧#008:LONGFENG.MEM   28966   +X:   80.8mm
 ⑨#009:AAAAAAAA.MEM   18788   -X:   80.8mm
 ⑩#010:BBBBBBBB.MEM    8788   +Y:   51.5mm
                        ▼     -Y:   51.5mm
                              CO:    5
  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Press 〔PU〕 〔PD〕 to turn the page up and down, press ▲ ▼ to move the cursor or **0**-**9** to select the pattern to be embroidered, and then press ↵, the system will automatically enter the Embroidery Preparation Status, see the figure below:

In the Select Pattern menu, you can press [+/−] to display all selected patterns in full screen, press any key to return to the Select Pattern menu.

```
Working Status          2006-06-18 16:05
                              001#ABCD1234
                              25600        0
                              REP.:X:01Y:01
                              Speed:     750
                              Time: 0:00:00
                              Number:      0
                              Total ST:
                                           0
                               1 001    1 2
                              AX: +    0.0
                              AY: −    0.0
     I↕   I▲I  STOP!  F   ▶▶ 100° ▱  ▱
```
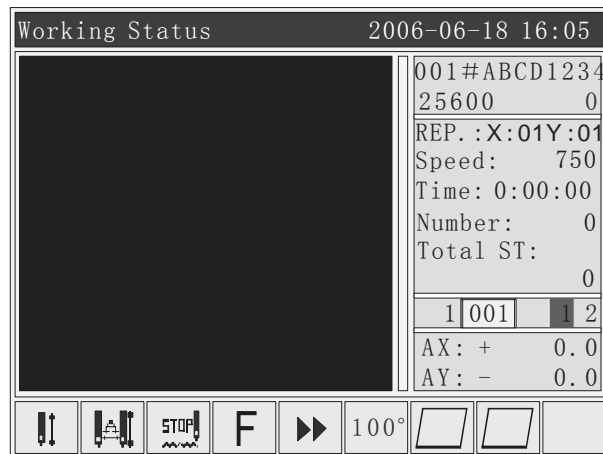
In the Embroidery Preparation Status, you can set parameters required for the embroidery, rotation direction and angle of the pattern as well as magnifying and repetition etc..

3.2 Input Patterns to the Memory

In the Pattern Management menu, press ▲ ▼ to move the cursor or ② to select the operation and then press ⏎ , see the figure below:

```
Disk Mangement          2006-06-18 16:05
 ①#001:LMNOPDRT.DST         512  ▲
 ②#002:QINGDAOW.DST       18865
 ③#003:DUILIESY.DST         986
 ④#004:12345678.DSB        8975
 ⑤#005:JIANSHEA.DSB       25896
 ⑥#006:TAIZHIKJ.DST       12888
 ⑦#007:ZHONGGUO.DST       38988
 ⑧#008:LONGFENG.DST       28966
 ⑨#009:AAAAAAAA.DST       18788
 ⑩#010:BBBBBBBB.DST        8788  ▼
          Disk File Number:  18

 Press Up,Down or Digital key to  Select
 Press Enter key Confirm
```
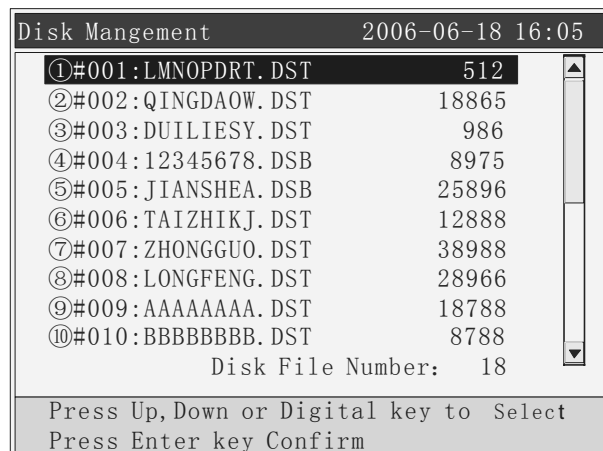
Press (PU), (PD) to turn the page up and down, press ▲ ▼ to move the cursor or **0** - **9** to choose needed pattern, press " confirm" button ,interface will release a dialog to mention the mini flower pattern number you can use, shown as below:

```
Disk Mangement                  2006-06-18 16:05
 ①#001:LMNOPDRT.DST              512        ▲
 ②#002:QINGDAOW.DST            18865
 ③#003:DUILIESY.DST              986
 ④#004 Input                             5
 ⑤#005                                  06
 ⑥#006     Flower Memory NO.:           8
 ⑦#007            8                     8
 ⑧#008       Enter        Esc           6
 ⑨#009 ─────────────────────           8
 ⑩#010:BBBBBBBB.DST            8788        ▼
           Disk File Number:   18
 Press Up,Down or Digital key to  Select
 Press Enter key Confirm
```
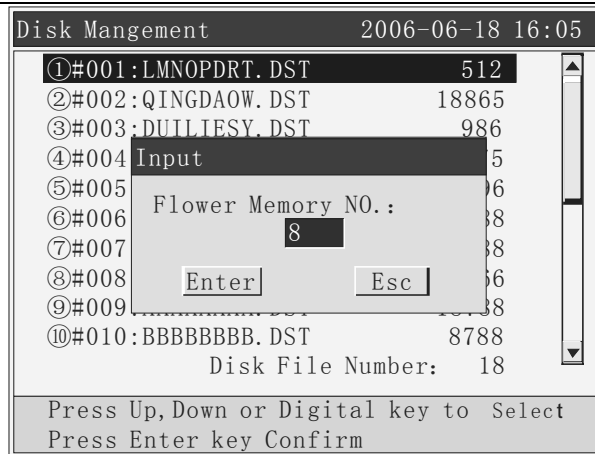
if need to change the flower pattern number, press digital number to modify, after confirming the imputed flower pattern number, press "confirm" button, the system hints that it is now copying files and the progress of the copying . shown as below:

If chosen imputed flower pattern number is being used, the system will hint that the flower pattern is using, do you want to change it , if you want to change it ,please press "confirm" button, then press "Esc"button to rechoose.

```
Disk Mangement                  2006-06-18 16:05
 ①#001:LMNOPDRT.DST              512        ▲
 ②#002:QINGDAOW.DST            18865
 ③#003:DUILIESY.DST              986
 ④#004 Message                          5
 ⑤#005                                  06
 ⑥#006 Copying, Please Wait...          8
 ⑦#007                                  8
 ⑧#008                                  6
 ⑨#009 ████████████░░░░░░░░░           8
 ⑩#010:BBBBBBBB.DST            8788        ▼
           Disk File Number:   18
 Press Up,Down or Digital key to  Select
 Press Enter key Confirm
```
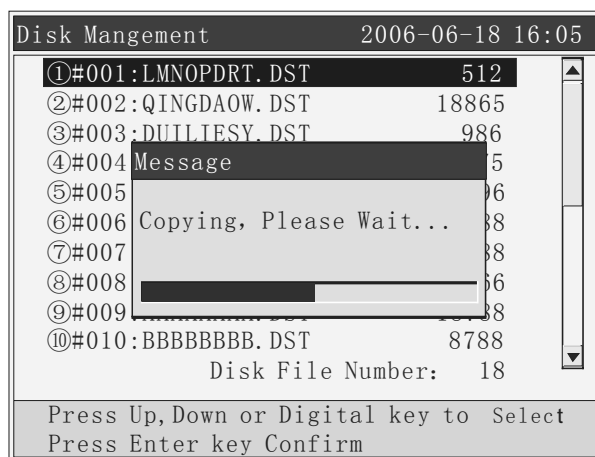
After imputing completely, buzzer will sound 3 times, interface will return to the flower pattern input interface automatically. You can continue to input the flower pattern.

3.3 Output Patterns

It is Importing Patterns of the memory to to U flash memory disc. In the interface of flower pattern management, press   press ▲ ▼ to move the cursor or ③ button to select the operation and then press ↵ , see the figure below:

```
Output Design              2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988        +X:   80.8mm
⑧#008:LONGFENG.MEM   28966        −X:   80.8mm
⑨#009:AAAAAAAA.MEM   18788        +Y:   51.5mm
⑩#010:BBBBBBBB.MEM    8788  ▼      −Y:   51.5mm
                                   CO:    5
    Up Down Digital key  Select PU PD to
    Change Page,Enter key Confirm
```
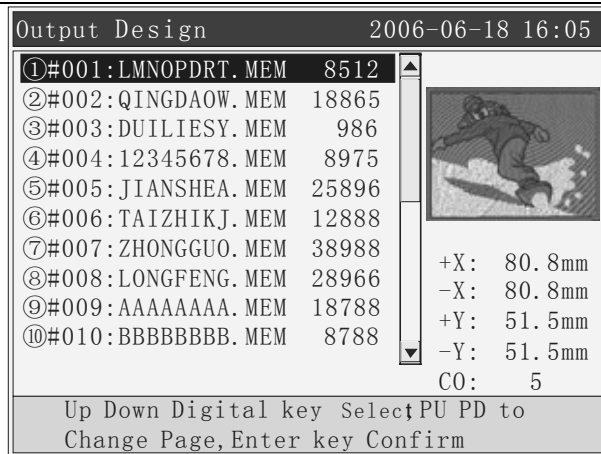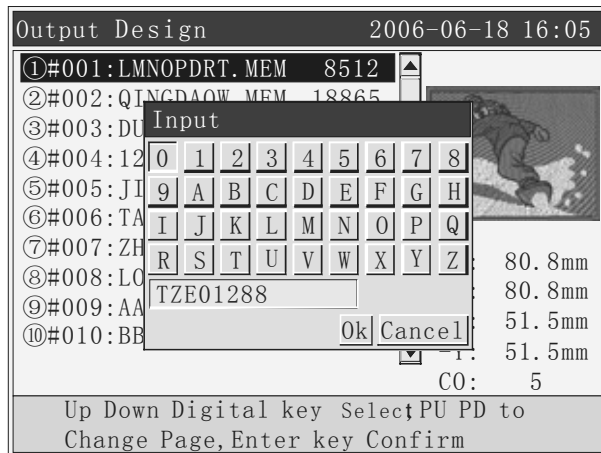
Press ⊕(PU), ⊕(PD) to turn the page up and down, press ▲ ▼ to move the cursor or

0 - **9** to choose needed output pattern, press " confirm" button ,interface will release a

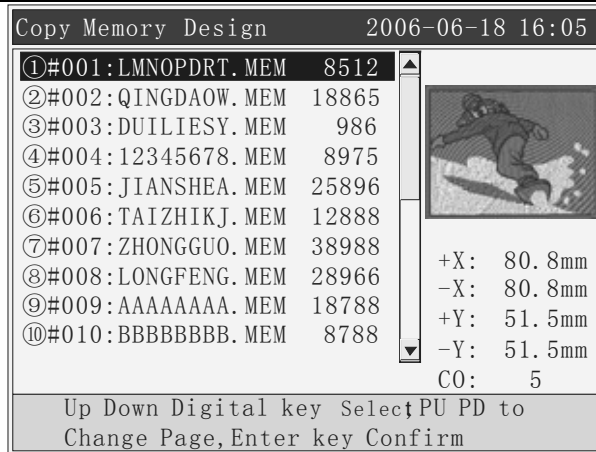dialog to mention to modify the number of flower pattern, shown as below:

```
Output Design              2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DU ┌Input─────────────────┐
④#004:12 │ 0  1  2  3  4  5  6  7  8 │
⑤#005:JI │ 9  A  B  C  D  E  F  G  H │
⑥#006:TA │ I  J  K  L  M  N  O  P  Q │
⑦#007:ZH │ R  S  T  U  V  W  X  Y  Z │   80.8mm
⑧#008:LO │ TZE01288              │   80.8mm
⑨#009:AA │                 Ok Cancel │   51.5mm
⑩#010:BB └──────────────────────┘   51.5mm
                                   CO:    5
    Up Down Digital key  Select PU PD to
    Change Page,Enter key Confirm
```

Press ▲ ▼ ◀ ▶ to move cursor, press "choose"button to select letters,after

complete modifications, press confirm button to storage the flower pattern. If you use the

original flower pattern name, just press confirm button to storage the button.

After saving the flower pattern, interface will be returned to the output flower pattern

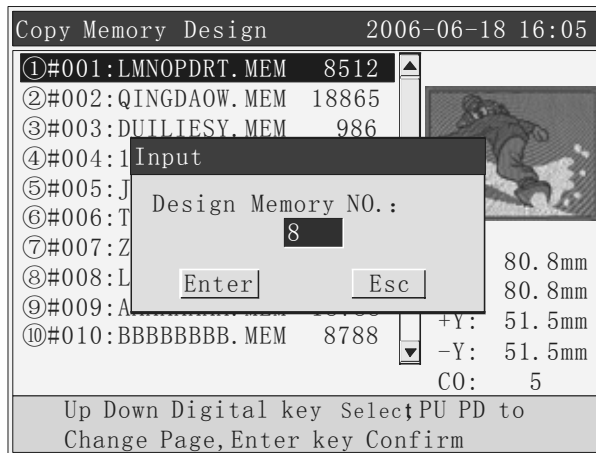automatically, you can continue to output pattern.

3.4 Copy Patterns

In the Pattern Management menu, press ▲ ▼ to move the cursor or ④ to select the

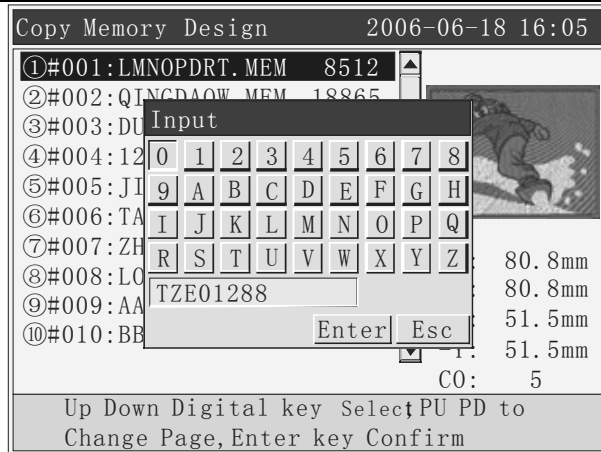operation and then press ↵ , see the figure below:

```
Copy Memory Design          2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988        +X:   80.8mm
⑧#008:LONGFENG.MEM   28966        −X:   80.8mm
⑨#009:AAAAAAAA.MEM   18788        +Y:   51.5mm
⑩#010:BBBBBBBB.MEM    8788  ▼     −Y:   51.5mm
                                  CO:     5
   Up Down Digital key Select PU PD to
   Change Page,Enter key Confirm
```

Press 🔘(PU) 🔘(PD) to turn the page up and down, press 🔺 🔻 to move the cursor or **0**-

9 to select the pattern to be copied and the press ⏎, a pop-up menu will appear to prompt

the min. available pattern number imported in the memory pattern number, see the figure below:

```
Copy Memory Design          2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:1 ┌Input──────────────┐
⑤#005:J │                   │
⑥#006:T │  Design Memory NO.:│
⑦#007:Z │   8                │
⑧#008:L │                   │ 80.8mm
⑨#009:A │ ┌Enter┐    ┌Esc┐  │ 80.8mm
⑩#010:BBB└───────────────────┘ 51.5mm
                                  −Y:   51.5mm
                                  CO:     5
   Up Down Digital key Select PU PD to
   Change Page,Enter key Confirm
```

If it's required to modify the pattern number in memory, press **0** - **9** for modification,

after confirming the inputted pattern number, press ⏎, a pop-up menu will appear to prompt
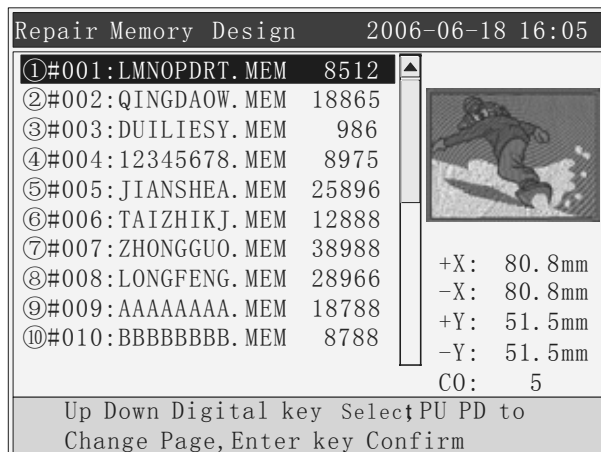modification of the pattern number, see the figure below:

If the selected pattern number in the memory is already used, the system will prompt that

"pattern number already used, cover?", after confirming to cover, press ⏎ to save and press
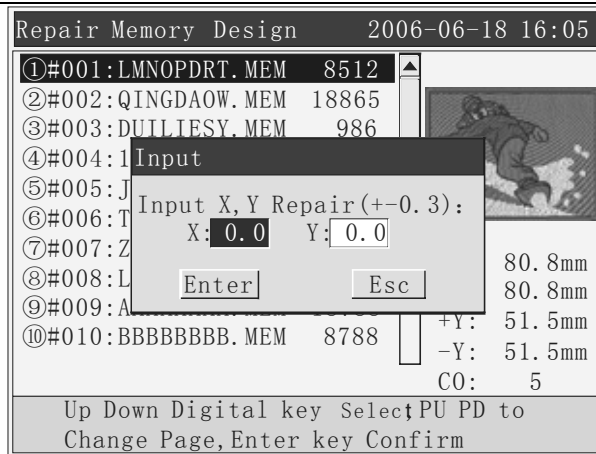
ESC to return for reselection.

```
Copy Memory Design          2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW MEM   18865
③#003:DU ┌─────────────────────────┐
④#004:12 │ Input                   │
⑤#005:JI │ 0  1  2  3  4  5  6  7  8│
⑥#006:TA │ 9  A  B  C  D  E  F  G  H│
⑦#007:ZH │ I  J  K  L  M  N  O  P  Q│
⑧#008:LO │ R  S  T  U  V  W  X  Y  Z│ 80.8mm
⑨#009:AA │ TZE01288              ︱ 80.8mm
⑩#010:BB │              Enter  Esc │ 51.5mm
         └─────────────────────────┘ 51.5mm
                                  CO:    5
    Up Down Digital key Select PU PD to
    Change Page, Enter key Confirm
```

Press ▲ ▼ ◀ ▶ to move the cursor, press ⏩ to select characters, after the

modification, press ↵ to save the pattern. If the original pattern name is used, directly press

↵ to save the pattern.

3.5 Repair Pattern

In the Pattern Management menu, press ▲ ▼ to move the cursor or (5) to select

the operation and then press ↵, see the figure below:

```
Repair Memory Design        2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988
⑧#008:LONGFENG.MEM   28966   +X:   80.8mm
⑨#009:AAAAAAAA.MEM   18788   -X:   80.8mm
⑩#010:BBBBBBBB.MEM    8788   +Y:   51.5mm
                             -Y:   51.5mm
                             CO:    5
    Up Down Digital key Select PU PD to
    Change Page, Enter key Confirm
```
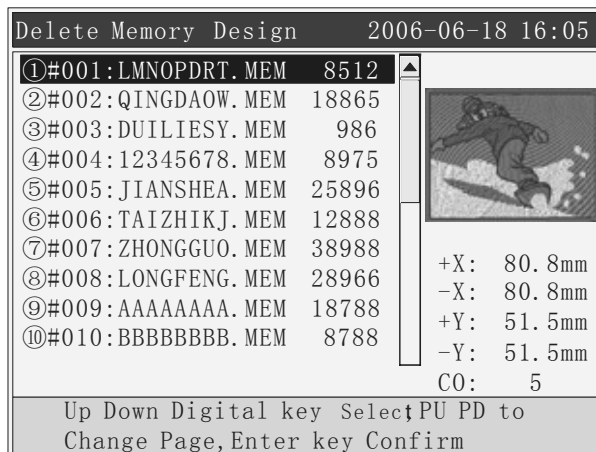
Press (PU) (PD) to turn the page up and down, press ▲ ▼ to move the cursor or (0) -

(9) to select the pattern to be compensated and then press ↵, a pop-up menu will appear

to prompt inputting compensation values, see the figure below:

```
Repair Memory Design          2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512 ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:1 Input
⑤#005:J
⑥#006:T Input X,Y Repair(+-0.3):
⑦#007:Z     X: 0.0   Y: 0.0
⑧#008:L                           80.8mm
⑨#009:A   Enter        Esc       80.8mm
⑩#010:BBBBBBBB.MEM    8788      +Y:  51.5mm
                                 -Y:  51.5mm
                                 CO:    5
     Up Down Digital key Select PU PD to
     Change Page,Enter key Confirm
```

Press the numeric keys to input the compensation values, press $\boxed{+/-}$ to change between positive and negative values, and press $\boxed{\leftarrow}$ to save the compensated pattern. Upon completion, the system will automatically return to the Compensate Pattern menu, where you can continue with compensation operation.

3.6 Delete Pattern (Single pattern)

In the Pattern Management menu, press ▲ ▼ to move the cursor or ⑥ to select the operation and then press $\boxed{\leftarrow}$, see the figure below:

```
Delete Memory Design          2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512 ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988
⑧#008:LONGFENG.MEM   28966    +X:  80.8mm
⑨#009:AAAAAAAA.MEM   18788    -X:  80.8mm
⑩#010:BBBBBBBB.MEM    8788    +Y:  51.5mm
                              -Y:  51.5mm
                              CO:    5
     Up Down Digital key Select PU PD to
     Change Page,Enter key Confirm
```

Press $\overset{\text{PU}}{\bigcirc}$ $\overset{\text{PD}}{\bigcirc}$ to turn the page up and down, press ▲ ▼ to move the cursor or $\boxed{0}$ - $\boxed{9}$ to select the pattern to be deleted (during the Embroidering Pattern Status, the pattern currently in use cannot the deleted) and then press $\boxed{\leftarrow}$ a pop-up menu will appear to prompt whether to delete current pattern, see the figure below:

```
 Delete Memory Design         2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:1 Message
⑤#005:J
⑥#006:T   Dlete the File?
⑦#007:Z
⑧#008:L                              80.8mm
⑨#009:A   Enter        Esc          80.8mm
⑩#010:BBBBBBBB.MEM    8788     +Y:  51.5mm
                               -Y:  51.5mm
                               CO:    5
   Up Down Digital key Select PU PD to
   Change Page,Enter key Confirm
```
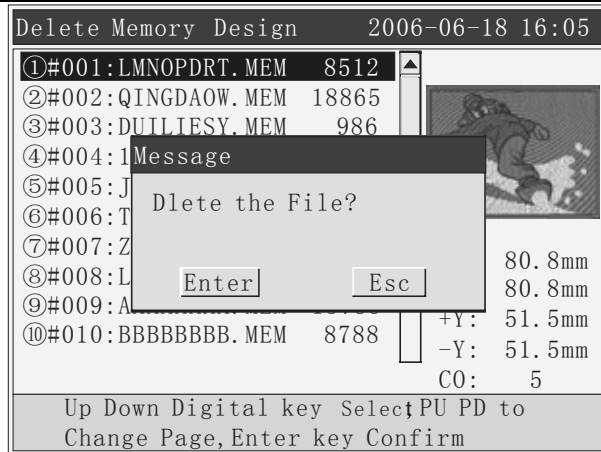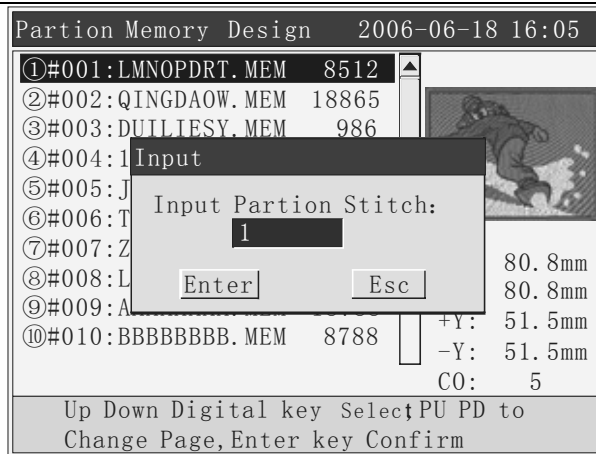
Press ⏎ to delete the pattern. Upon completion, the system will return to the Delete Pattern menu, where you can continue deleting patterns.
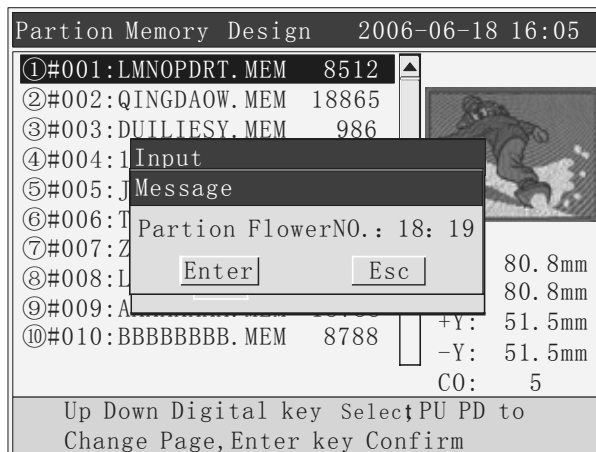
3.7 Partion Pattern

In the Pattern management menu, press △ ▽ to move the cursor or 7 to select the operation and then press ⏎, see the figure below:

```
 Partion Memory Design        2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988
⑧#008:LONGFENG.MEM   28966     +X:  80.8mm
⑨#009:AAAAAAAA.MEM   18788     -X:  80.8mm
⑩#010:BBBBBBBB.MEM    8788     +Y:  51.5mm
                               -Y:  51.5mm
                               CO:    5
   Up Down Digital key Select PU PD to
   Change Page,Enter key Confirm
```
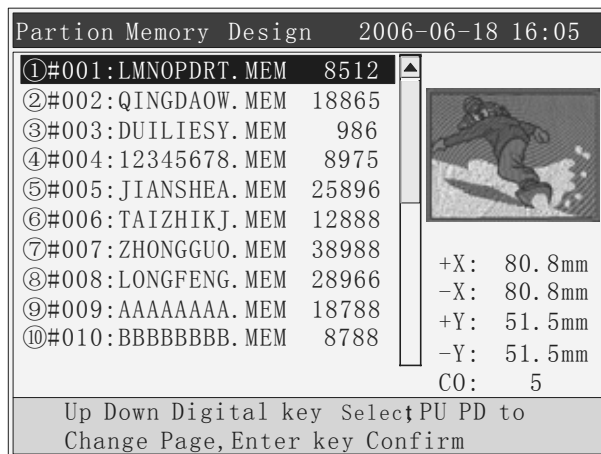
Press 🔘PU 🔘PD to turn the page up and down, press △ ▽ to move the cursor or 0 - 9 to select the pattern to be divided and then press ⏎, a pop-up menu will appear to m, see the figure below:

```
Partion Memory Design      2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:1 Input
⑤#005:J
⑥#006:T    Input Partion Stitch:
⑦#007:Z         1                        80.8mm
⑧#008:L                                  80.8mm
⑨#009:A    Enter           Esc
⑩#010:BBBBBBBB.MEM    8788        +Y:  51.5mm
                                 -Y:  51.5mm
                                 CO:    5
  Up Down Digital key  Select PU PD to
  Change Page, Enter key Confirm
```
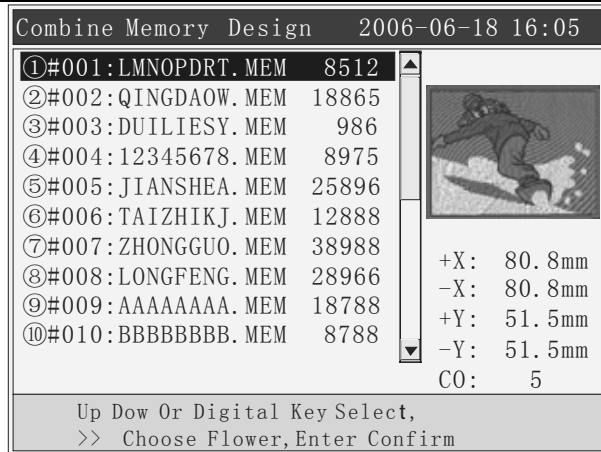
Press **0** - **9** to input number of stitches of the dividing point, press ⏎ to save the divided pattern. Then the pattern number (automatically designated) saved in memory will be shown on the screen. See the figure below:

```
Partion Memory Design      2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512  ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:1 Input
⑤#005:J Message
⑥#006:T
⑦#007:Z Partion FlowerNO.: 18: 19
⑧#008:L  Enter           Esc         80.8mm
⑨#009:A                              80.8mm
⑩#010:BBBBBBBB.MEM    8788        +Y:  51.5mm
                                 -Y:  51.5mm
                                 CO:    5
  Up Down Digital key  Select PU PD to
  Change Page, Enter key Confirm
```

Press ⏎ to save, upon completion, the system will automatically return to the Divide Pattern menu, where you can continue to divide patterns.
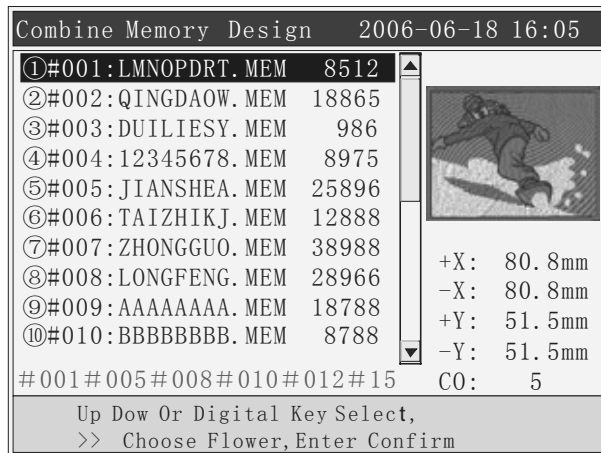
3.8 Combine Patterns

In the Pattern management menu, press ▲ ▽ to move the cursor or ⑧ to select the operation and then press ⏎, see the figure below:
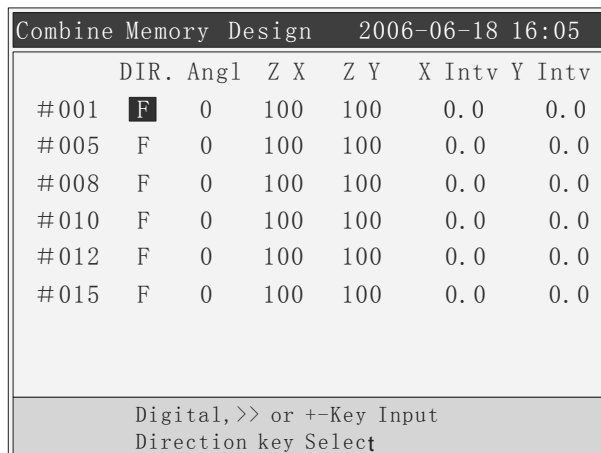
```
Combine Memory Design      2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512 ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988          +X:   80.8mm
⑧#008:LONGFENG.MEM   28966          -X:   80.8mm
⑨#009:AAAAAAAA.MEM   18788          +Y:   51.5mm
⑩#010:BBBBBBBB.MEM    8788 ▼        -Y:   51.5mm
                                    CO:    5
     Up Dow Or Digital Key Select,
     >>  Choose Flower,Enter Confirm
```

Press ⊙PU ⊙PD to turn the page up and down, press ▲ ▽ to move the cursor or **0** -

9 to select patterns to be combined and then press ⊛ to confirm the patterns, see the figure below:

```
Combine Memory Design      2006-06-18 16:05
①#001:LMNOPDRT.MEM    8512 ▲
②#002:QINGDAOW.MEM   18865
③#003:DUILIESY.MEM     986
④#004:12345678.MEM    8975
⑤#005:JIANSHEA.MEM   25896
⑥#006:TAIZHIKJ.MEM   12888
⑦#007:ZHONGGUO.MEM   38988          +X:   80.8mm
⑧#008:LONGFENG.MEM   28966          -X:   80.8mm
⑨#009:AAAAAAAA.MEM   18788          +Y:   51.5mm
⑩#010:BBBBBBBB.MEM    8788 ▼        -Y:   51.5mm
#001#005#008#010#012#15             CO:    5
     Up Dow Or Digital Key Select,
     >>  Choose Flower,Enter Confirm
```

After selection, press ⏎ to enter the Pattern Combination Parameters Setting menu, see the figure below:

```
Combine Memory  Design    2006-06-18 16:05
        DIR. Angl  Z X   Z Y    X Intv  Y Intv
 #001    F     0   100   100    0.0     0.0
 #005    F     0   100   100    0.0     0.0
 #008    F     0   100   100    0.0     0.0
 #010    F     0   100   100    0.0     0.0
 #012    F     0   100   100    0.0     0.0
 #015    F     0   100   100    0.0     0.0



     Digital,>> or +-Key Input
     Direction key Select
```

Press ▲ ▽ ◁ ▷ to select parameter to be set, you need not to set the transition

value for the first pattern. Press ⊛ to change the direction of the pattern, press **0** - **9** to

18

modify other data. After setting parameters of each pattern, press [↵], a dialog box will pop up to prompt inputting the number of pattern in memory, see the figure below:
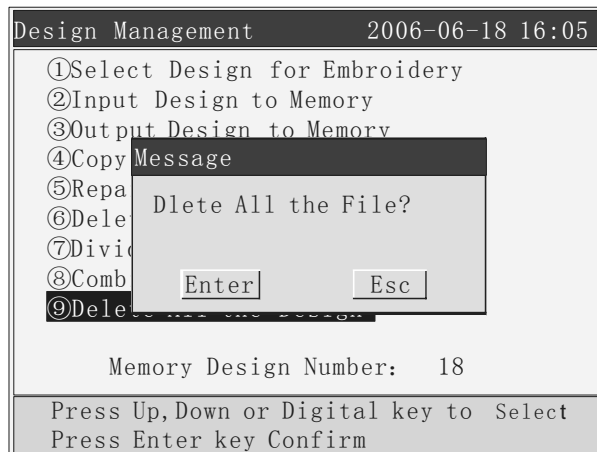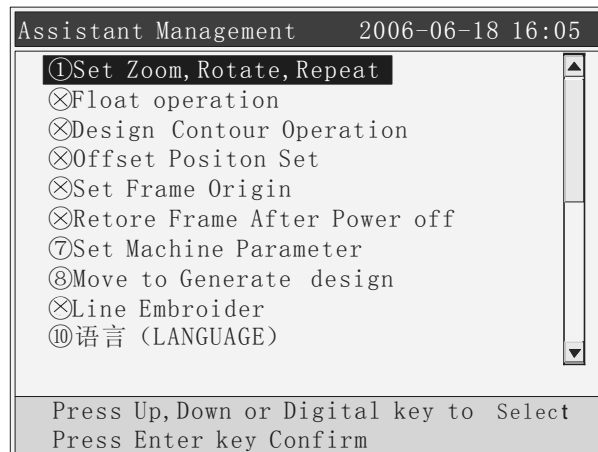
```
Combine Memory  Design      2006-06-18 16:05
         DIR. Angl  Z X    Z Y    X Intv Y Intv
   #001   F    0   100    100     0.0    0.0
   #005  ┌─────────────────────────┐   0.0
   #008  │ Input                   │   0.0
   #010  │   Flower Memory NO.:    │   0.0
   #012  │          8              │   0.0
   #015  │    Enter        Esc     │   0.0
         └─────────────────────────┘

              Digital, >> or +-Key Input
              Direction key Select
```
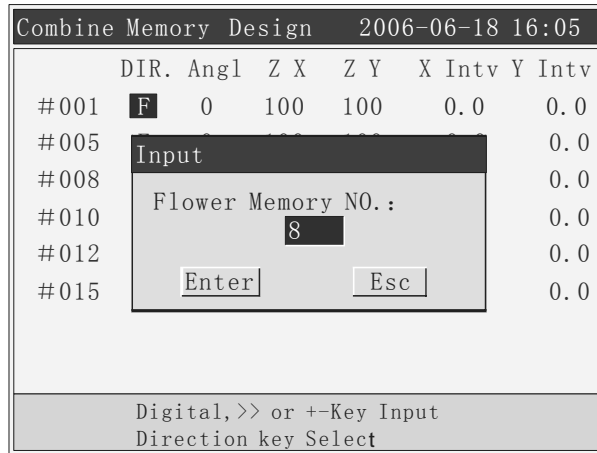
Press [↵] to save, upon completion, the system will automatically return to the Combine Patterns menu, where you can continue with the combination of patterns.

3.9 Delete All Patterns

This function is only valid in the Embroidery Preparation status.

In the Pattern management menu, press [▲] [▼] to move the cursor or (9) to select the operation and then press [↵], see the figure below:

```
Design Management           2006-06-18 16:05
  ①Select Design for Embroidery
  ②Input Design to Memory
  ③Output Design to Memory
  ④Copy ┌─────────────────────────┐
  ⑤Repa │ Message                 │
  ⑥Dele │  Dlete All the File?    │
  ⑦Divi │                         │
  ⑧Comb │   Enter        Esc      │
  ⑨Dele └─────────────────────────┘

         Memory Design Number:   18
  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Press [↵] to delete all, upon completion, the system will automatically return to the Pattern Management menu.

Part 4   Auxiliary Functions

Auxiliary functions are available in both the Embroidery Preparation menu and Embroidering Pattern menu, while some functions are limited in different status. Auxiliary functions include settings for magnifying, rotation, repetition and positioning idling, setting of pattern contour, offset point and the origin of the embroidery frame, restoring operation of the embroidery frame after power cut, machine parameter settings, creating a new pattern by shifting the frame, beeline operation, language support, shifting the frame when stopped at the lower position, cyclic embroidery setting, system testing, system management, canceling user limitation and system information, etc.

In any menu, press [Other] to enter the auxiliary management menu, see the figure below:

Embroidery Preparation Status

```
Assistant Management       2006-06-18 16:05
  ①Set Zoom,Rotate,Repeat                    ▲
  ⊗Float operation
  ⊗Design Contour Operation
  ⊗Offset Positon Set
  ⊗Set Frame Origin
  ⊗Retore Frame After Power off
  ⑦Set Machine Parameter
  ⑧Move to Generate  design
  ⊗Line Embroider
  ⑩语言（LANGUAGE）                          ▼

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Embroidering pattern status

```
Assistant Management       2006-06-18 16:05
  ⊗Set Zoom,Rotate,Repeat                    ▲
  ②Float operation
  ③Design Contour Operation
  ④Offset Positon Set
  ⑤Set Frame Origin
  ⑥Retore Frame After Power off
  ⑦Set Machine Parameter
  ⊗Move to Generate  design
  ⑨Line Embroider
  ⑩语言（LANGUAGE）                          ▼

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Press [PU] [PD] to turn the page up and down.

Embroidery Preparation Status/Embroidering Pattern status

```
┌─────────────────────────────────────────────┐
│ Assistant Management      2006-06-18 16:05   │
├─────────────────────────────────────────┬───┤
│ ①Frame Software Limit Set               │ ▲ │
│ ②Mve Frame For Needle Down              │   │
│ ③Set Repeat Embroidery                  │   │
│ ④System Test                            │   │
│ ⑤System Management                      │   │
│ ⑥Unfreeze User Lim it                   │   │
│ ⑦System Information                     │   │
│                                         │ ▼ │
├─────────────────────────────────────────┴───┤
│ Press Up,Down or Digital key to  Select      │
│ Press Enter key Confirm                      │
└─────────────────────────────────────────────┘
```
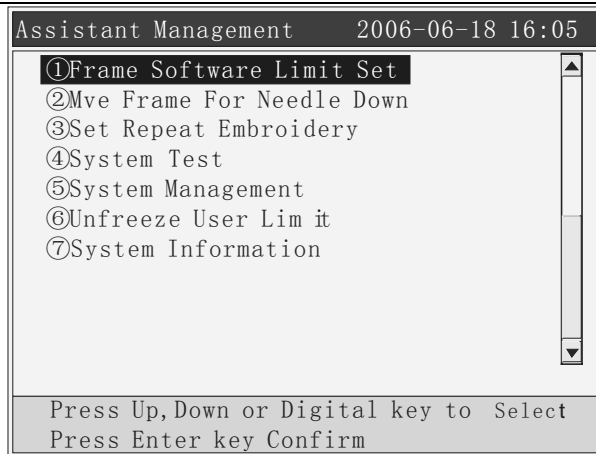
4.1 Setting Magnifying, Rotation and Repetition (Pattern Parameters)

This operation is only available in the Embroidery Preparation Status.

In the Auxiliary Management menu, press ▲ ▼ to move the cursor or ① to select the

operation and then press ↵, see the figure below:

```
┌─────────────────────────────────────────────┐
│ Design Parameter          2006-06-18 16:05   │
├─────────────────────────────────────────────┤
│ ①Rorate Angle:            ▏0            ▏    │
│ ②X Scale (50-200%):       ▏100          ▏    │
│ ③Y Scale (50-200%):       ▏100          ▏    │
│ ④Repeat Mode:             ▏Norma      ▼ ▏    │
│ ⑤Prority:                 ▏X DIR      ▼ ▏    │
│ ⑥X Repeat Times:          ▏1            ▏    │
│ ⑦Y Repeat Times:          ▏1            ▏    │
│ ⑧X Interval :             ▏0.0          ▏    │
│ ⑨Y Interval :             ▏0.0          ▏    │
├─────────────────────────────────────────────┤
│         Digital,>> or +-key Input            │
│         Direction key Select                 │
└─────────────────────────────────────────────┘
```
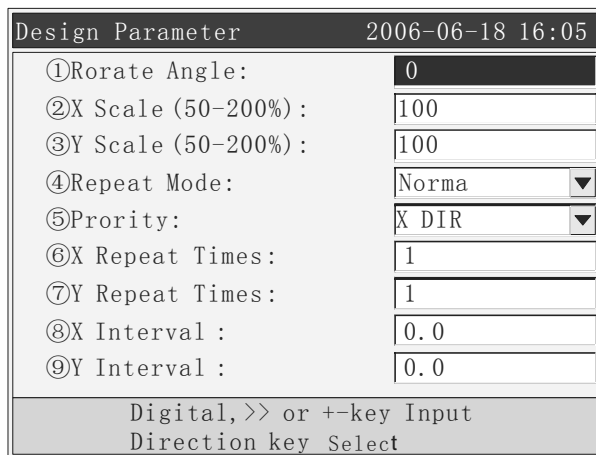
Press ▲ ▼ to select the data to be modified, press ⏩ to modify the mode of repetition

and the direction of priority, press **0** - **9** to modify other data, the unit for the transition

value is mm. For instance, if the required transition value is 100mm, you must input 1000, then

press +/− to modify the positive/negative value of the transition value. After the modification,

press ↵ and the system will automatically return to the Auxiliary Management menu.

4.2 Idling

This operation is only available in the Embroidering pattern status.

Positioning idling includes 4 operations of adding/reducing specified number of stitches, going

to the next/previous color.

In the Auxiliary Management menu, press ▲ ▼ to move the cursor or ② to select the operation and then press ↵, see the figure below:

```
Embroidery Design          2006-06-18 16:05

                                001#ABCD1234
                                25600        0
                                REP.:X:01Y:01
 Select                         Speed:     750
     ①Forward Stitchs           Time: 0:00:00
     ②Backward Stitchs          Number:      0
     ③Forward a Color           Total ST:
     ④Backward a Color                       0
   Enter          Esc            1 001    1 2
                                AX: +      0.0
                                AY: -      0.0

   I↕   I▲I  STOP!  F  ▶▶ 100°  ▱ ▱
```
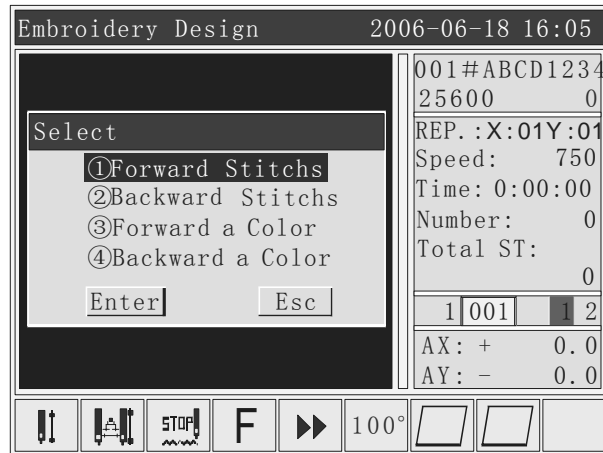
4.2-1 Adding/Reducing Specified Stitches

In the Positioning Idling menu, press ▲ ▼ to move the cursor or ① or ② to select the operation and then press ↵, see the figure below:

```
Embroidery Design          2006-06-18 16:05

                                001#ABCD1234
                                25600        0
                                REP.:X:01Y:01
 Choose                         Speed:     750
 Input                          Time: 0:00:00
                                Number:      0
   Input Stitch Number:         Total ST:
        0                                   0
   Enter          Esc            1 001    1 2
                                AX: +      0.0
                                AY: -      0.0

   I↕   I▲I  STOP!  F  ▶▶ 100°  ▱ ▱
```
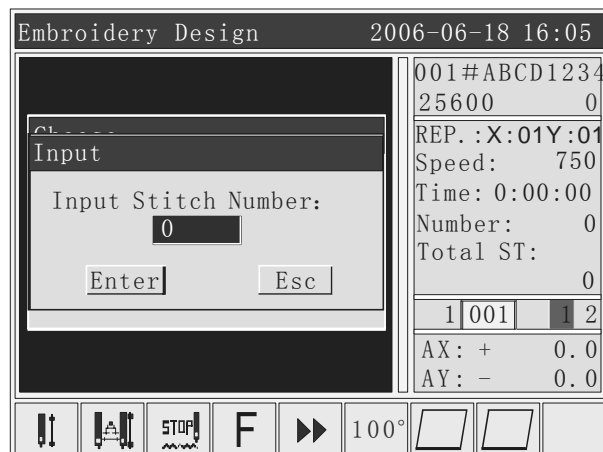
Press **0** - **9** to input the required number of stitches and then press ↵, the embroidery frame will directly move to the location of the specified needle tracking point.

4.2-2 Go to the Next Color/Previous Color

In the Positioning Idling menu, press ▲ ▼ to move the cursor or ③ or ④ to select going to the next or previous color and then press ↵, the embroidery frame will directly move to the location of the specified needle tracking point.

4.3 Pattern Contour

This operation is available in both the Embroidery Preparation status and the Embroidering

Pattern status.

Pattern Contour includes Embroidering Pattern Contour and Creating Pattern Contour.
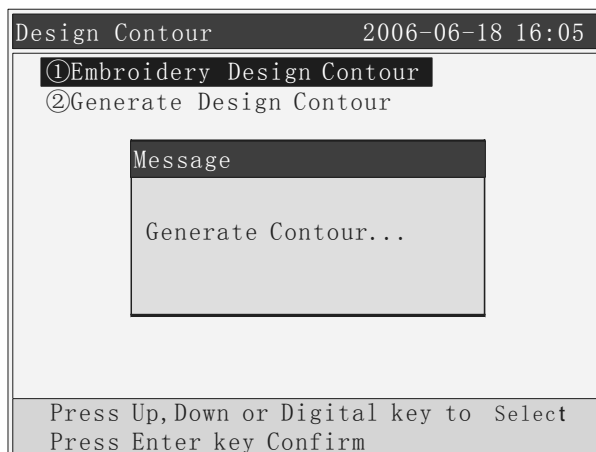
In the Auxiliary Management menu, press ▲ ▼ to move the cursor or ③ to select the

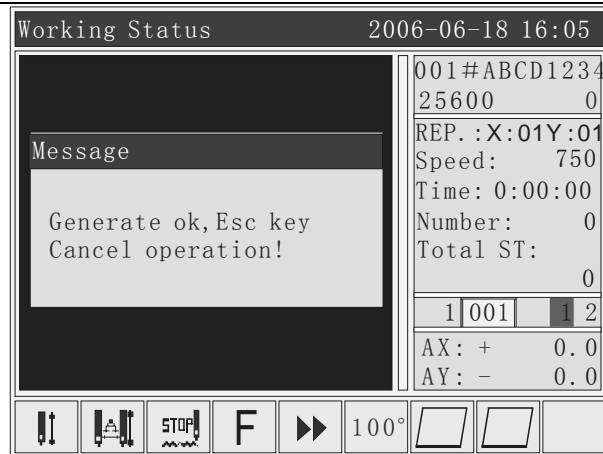operation and then press ↵ , see the figure below:

```
Design Contour            2006-06-18 16:05
   ①Embroidery Design Contour
   ②Generate Design Contour




   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```
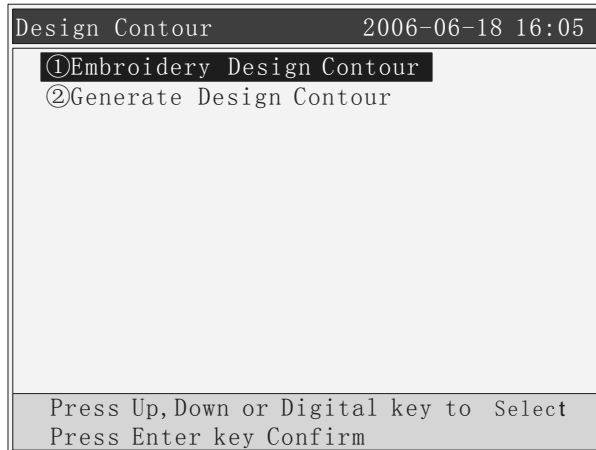
4.3-1 Embroidery Pattern Contour

This operation is only available in the Embroidering pattern status.

In the Pattern Contour menu, press ▲ ▼ to move the cursor or ① to select the

operation, Press ↵ to start creating the pattern contour, see the figure below:

```
Design Contour            2006-06-18 16:05
   ①Embroidery Design Contour
   ②Generate Design Contour

         Message

           Generate Contour...



   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```

After the contour is created, the system will automatically turn to the Embroidering Pattern

menu, waiting for pulling the bar for mebroidery.

```
Working Status          2006-06-18 16:05

                        001#ABCD1234
                        25600        0
                        REP.:X:01Y:01
  Message               Speed:     750
                        Time: 0:00:00
  Generate ok,Esc key   Number:      0
  Cancel operation!     Total ST:
                                     0
                         1 001    1 2
                        AX: +     0.0
                        AY: -     0.0

  It  A:   STOP  F   ▶▶  100°  □  □
```

4.3-2 Creating Pattern Contour

This operation is only available in the Embroidery Preparation Status.

In the Pattern Contour menu, press △ ▽ to move the cursor or ② to select the

operation and then press ↵, see the figure below:

```
Design Contour          2006-06-18 16:05
  ①Embroidery Design Contour
  ②Generate Design Contour

        Message

          Generate Contour...



  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```
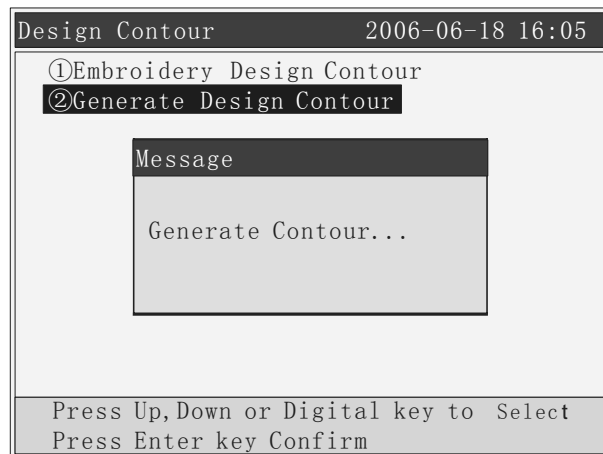
After the contour is created, the system will automatically turn to the Save Pattern menu.

```
Design Contour          2006-06-18 16:05
  ①Embroidery Design Contour
  ②Generate Design Contour

        Input

          Design Memory NO.:
                8

          Enter        Esc

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```
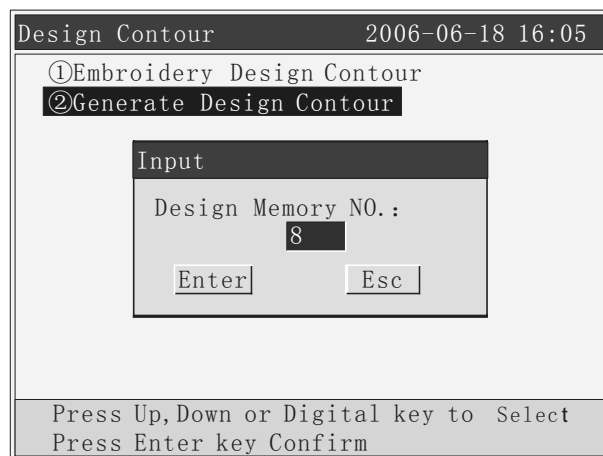
Press ↵ to save the pattern, and the system will automatically return to the Auxiliary

Management menu.

4.4 Set violation point (Another Starting Point)

This operation is only available in the Embroidering pattern status.

The purpose of setting the offset point is mainly to facilitate the collection of embroidering materials and placement of patches, **before setting the offset point, the starting point must be defined.**

In the Auxiliary Management menu, press ▲ ▼ to move the cursor or ④ to select the operation and then press ↵, see the figure below:

```
Working Status          2006-06-18 16:05
                                 001#ABCD1234
                                  25600        0
                                 REP. :X:01Y:01
    Message                      Speed:      750
                                 Time: 0:00:00
      Move to Offset             Number:       0
      Press Enter Key!           Total ST:
        Enter        Esc                       0
                                  1 001    1 2
                                 AX: +     0. 0
                                 AY: -     0. 0

   I↕   |A|   STOP   F   ▶▶  100°  ▱  ▱
```
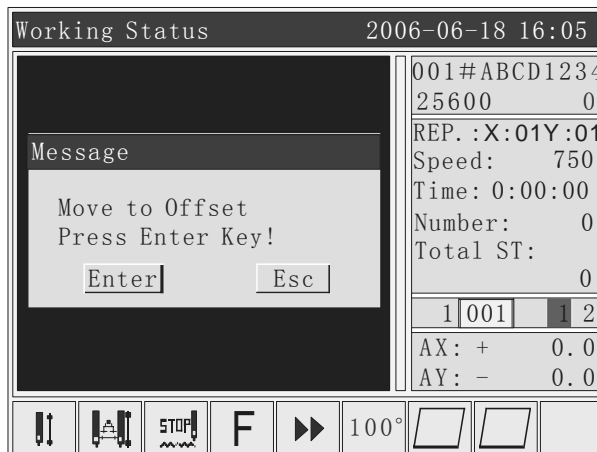
Shift the frame to the offset point according to the prompt and then press ↵ to complete the setting of the offset point.

4.5 Set Origin point of the Embroidery Frame

This operation is available in both the Embroidery Preparation Status and the Embroidering Pattern Status.

The setting of the origin of the embroidery frame includes manual setting of the origin and searching for the absolute origin.

In the Auxiliary Management menu, press ▲ ▼ to move the cursor or ⑤ to select the operation and then press ↵, see the figure below:

```
Frame Origin                2006-06-18 16:05
   ①Manual Set Frame Origin
   ②Auto Find Frame Origin




   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```
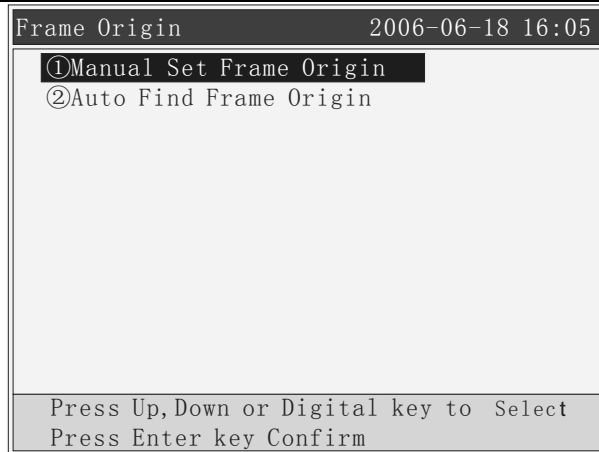
4.5-1 Manual set frame origin

In the Embroidery Frame Origin menu, press ▲ ▼ to move the cursor or ① to select

the operation and then press ↵ , see the figure below:

```
Frame Origin                2006-06-18 16:05
   ①Manual Set Frame Origin
   ②Auto Find Frame Origin
      ┌─────────────────────────┐
      │ Message                 │
      │                         │
      │  Manual Set Origin,will │
      │  lose Frame Protection? │
      │                         │
      │   Enter        Esc      │
      └─────────────────────────┘

   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```
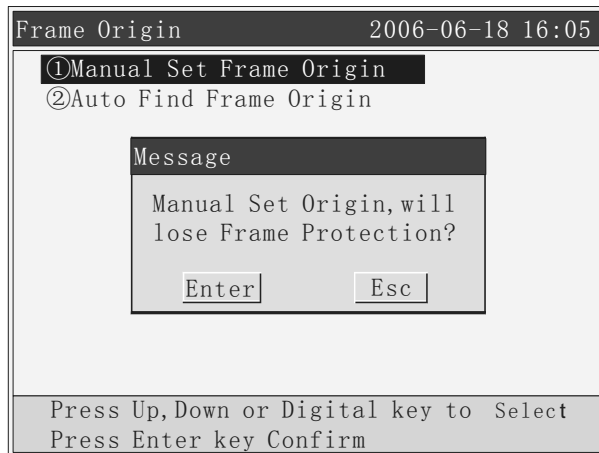
Press ↵ to complete the operation for setting the origin of the embroidery frame.

4.5-2 Auto find Frame origin

The absolute origin is the absolute position to detect the lower right corner of the embroidery frame with the limit of the embroidery frame, which can ensure correct continued embroidery by restoring the operation of the embroidery frame after power cut in case of any accident during the embroidery.

This function is carried out by system automatically, it must be confirmed that the limit sensor work effectively, otherwise, it may cause damage of the mechanical components!

In the Embroidery Frame Origin Menu, press ▲ ▼ to move the cursor or ② to select

the operation and then press ↵ , see the figure below:

```
Frame Origin                    2006-06-18 16:05
   ①Manual Set Frame Origin
   ②Auto Find Frame Origin

        Message

        Limit Switch Work Normal?


           Enter            Esc


   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```
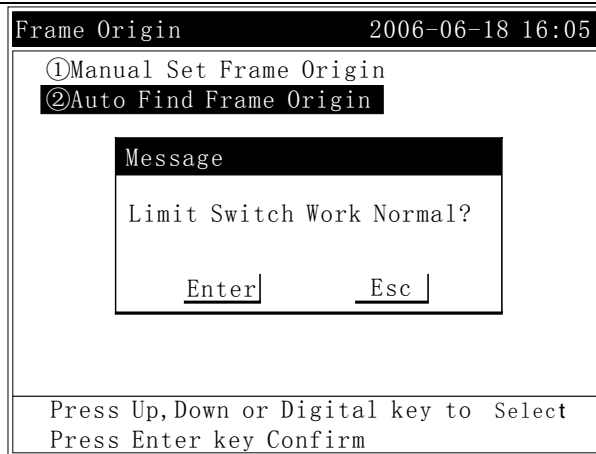
Press [⏎] to start auto searching of the absolute origin of the embroidery frame, upon completion, the embroidery frame will automatically return to the stop point before the searching.
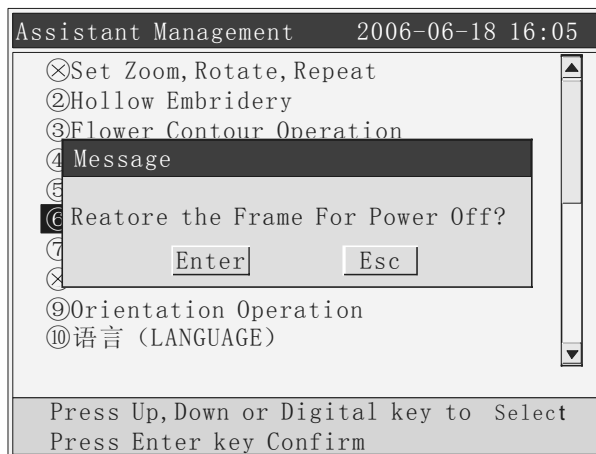
4.6 Restore the Frame Location when Power off

This operation is only available in the Embroidering pattern status.

This operation can only be used after the searching of the absolute origin described in 5.5.

This function is invalid unless the absolute origin operation has been carried out.

In the Auxiliary Management menu, press △ ▽ to move the cursor or ⑥ to select the

operation and then press [⏎], see the figure below:

```
Assistant Management           2006-06-18 16:05
   ⊗Set Zoom,Rotate,Repeat
   ②Hollow Embridery
   ③Flower Contour Operation
   ④ Message

   ⑥ Reatore the Frame For Power Off?
        Enter          Esc


   ⑨Orientation Operation
   ⑩语言（LANGUAGE）

   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```
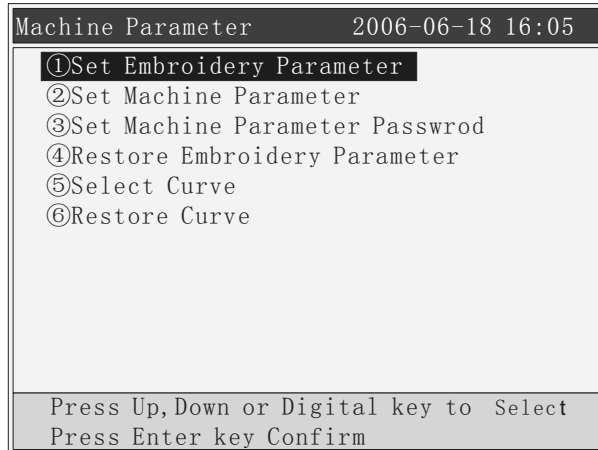
Press [⏎], the embroidery frame will start auto searching for the absolute origin, and then it will move to the embroidery position before the power cut and stop there. The embroidery can be continued if you pull the bar for starting the machine.

4.7 Set Machine Parameters

This operation is available in both the Embroidery Preparation Status and the Embroidering Pattern Status.
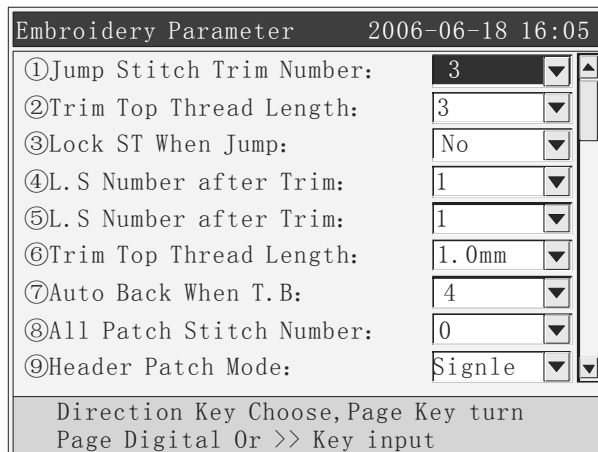
In Machine Parameters menu, you can set embroidering parameters or mechanical parameters, change password of mechanical parameter, restore embroidering parameters or set the frame shifting curve.

In the Auxiliary Management menu, press △ ▽ to move the cursor or ⑦ to select the operation and then press ↵, see the figure below:

```
Machine Parameter          2006-06-18 16:05
    ①Set Embroidery Parameter
    ②Set Machine Parameter
    ③Set Machine Parameter Passwrod
    ④Restore Embroidery Parameter
    ⑤Select Curve
    ⑥Restore Curve




    Press Up,Down or Digital key to  Select
    Press Enter key Confirm
```

4.7-1 Set   Embroidering Parameters

In the Machine Parameters menu, press △ ▽ to move the cursor or ① to select the operation and then press ↵, see the figure below:

```
Embroidery Parameter       2006-06-18 16:05
①Jump Stitch Trim Number:      3     ▼ ▲
②Trim Top Thread Length:       3     ▼
③Lock ST When Jump:            No    ▼
④L.S Number after Trim:        1     ▼
⑤L.S Number after Trim:        1     ▼
⑥Trim Top Thread Length:       1.0mm ▼
⑦Auto Back When T.B:           4     ▼
⑧All Patch Stitch Number:      0     ▼
⑨Header Patch Mode:            Signle▼ ▼
    Direction Key Choose,Page Key turn
    Page Digital Or >> Key input
```

Press (PU) (PD) to turn the page up and down, press △ ▽ to move the cursor or ⓪-⑨ to select the parameter to be modified, press (▸) to modify, after the modification, press ↵ to save the parameter.

4.7-2 Set Mechanical Parameters

This should only be used by professional personnel, others are prohibited to modify them without permission, or the machine may work abnormally.
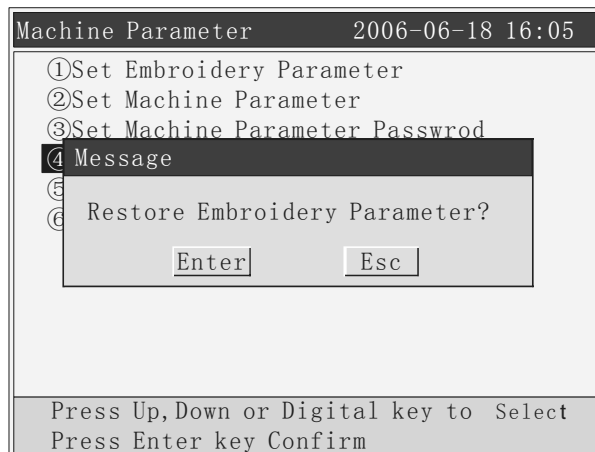
4.7-3 Set Password for Mechanical Parameters

This should only be used by professional personnel, others are prohibited to modify them without permission, or the machine may work abnormally

4.7-4 Restore Embroidering Parameters

When leaving the factory, the embroidering parameters of this system are set to meet the requirements of most users, if after setting the embroidering parameters, the embroidery effect is worse that before, you can restore the embroidering parameters to the status before the user's settings.

In the Machine Parameters menu, press ▲ ▼ to move the cursor or [4] to select the operation and then press [↵], see the figure below:

```
Machine Parameter          2006-06-18 16:05
  ①Set Embroidery Parameter
  ②Set Machine Parameter
  ③Set Machine Parameter Passwrod
  ④ Message
  ⑤
  ⑥  Restore Embroidery Parameter?

         Enter          Esc



  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```
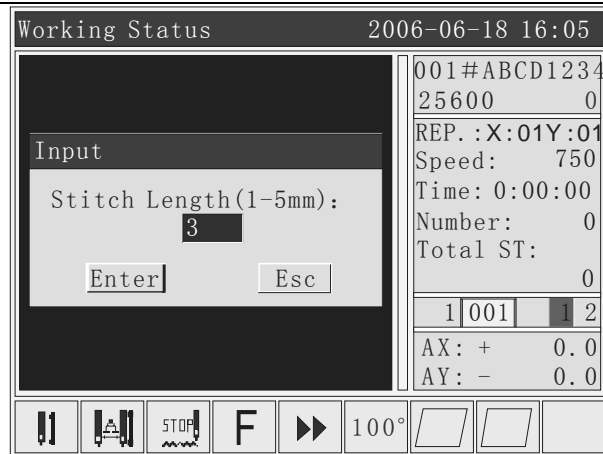
Press [↵] to restore embroidering parameters.

4.7-5 Set Frame Shifting Curve

This should only be used by professional personnel, others are prohibited to modify them without permission, or the machine may work abnormally.

4.8 Shift the Frame to Make New Pattern

This operation is only available in the Embroidery Preparation Status. This function is mainly used to facilitate the positioning of embroidering materials.

In the Machine Parameters menu, press ▲ ▼ to move the cursor or (8) to select the operation and then press [↵], see the figure below:

```
Working Status          2006-06-18 16:05

                              001#ABCD1234
                              25600        0
                              REP.:X:01Y:01
   Input                     Speed:      750
                             Time: 0:00:00
   Stitch Length(1-5mm):     Number:       0
         3                   Total ST:
                                           0
     Enter        Esc
                              1 001    1 2
                             AX: +     0.0
                             AY: -     0.0

   ▮▮  ▮▲▮  STOP  F  ▶▶ 100°  ▱ ▱
```
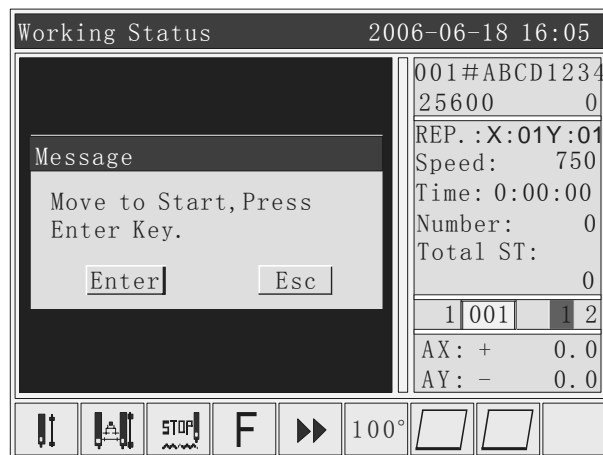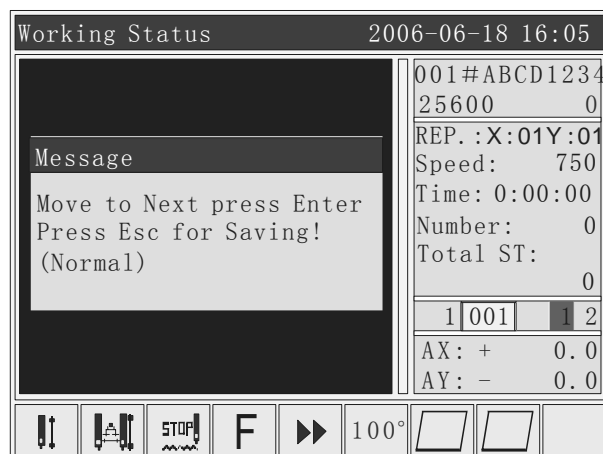
Press **0** - **9** to input the stitch step value (default value: 3mm) according to the

prompt and then press ↵ , see the figure below:

```
Working Status          2006-06-18 16:05

                              001#ABCD1234
                              25600        0
                              REP.:X:01Y:01
   Message                    Speed:      750
                             Time: 0:00:00
   Move to Start,Press       Number:       0
   Enter Key.                Total ST:
                                           0
     Enter        Esc
                              1 001    1 2
                             AX: +     0.0
                             AY: -     0.0

   ▮↕  ▮▲▮  STOP  F  ▶▶ 100°  ▱ ▱
```

Press △ ▽ ◁ ▷ to move the frame to the starting point and then press ↵ , see

the figure below:

```
Working Status          2006-06-18 16:05

                              001#ABCD1234
                              25600        0
                              REP.:X:01Y:01
   Message                    Speed:      750
                             Time: 0:00:00
   Move to Next press Enter  Number:       0
   Press Esc for Saving!     Total ST:
   (Normal)                                0

                              1 001    1 2
                             AX: +     0.0
                             AY: -     0.0

   ▮↕  ▮▲▮  STOP  F  ▶▶ 100°  ▱ ▱
```

Press △ ▽ ◁ ▷ to move the frame to the position of the next point and then press

↵ , during the operation, if the current migration distance needs to be transited by means of

jumping, then **before shifting the frame**, you should press +/- once to select the jumping

transition function (upon prompt in the dialog box) and then press [↵]. Repeat the operation above till the completion. Press [↵], a pop-up menu will appear to prompt the number of the pattern saved in memory, the pattern number is created by the system automatically, see the figure below:

```
Working Status              2006-06-18 16:05
                                  001#ABCD1234
                                  25600         0
                                  REP.:X:01Y:01
        Message                   Speed:      750
                                  Time: 0:00:00
        Memory Flower No.:8       Number:       0
                                  Total ST:
          Enter        Esc                    0
                                   1 001      1 2
                                  AX: +      0.0
                                  AY: −      0.0
        ‖↕  ‖▲‖  STOP  F  ▶▶ 100°  ▱  ▱
```
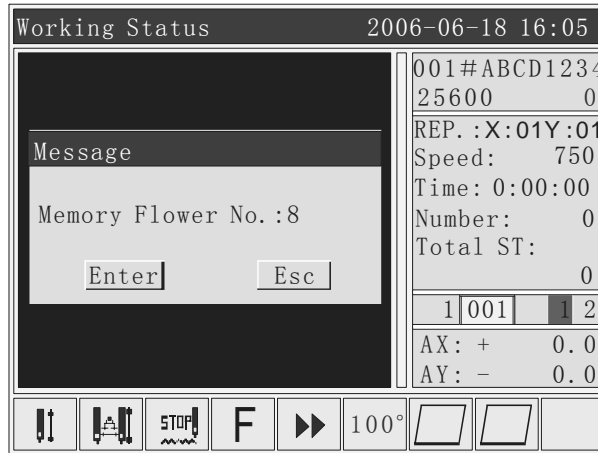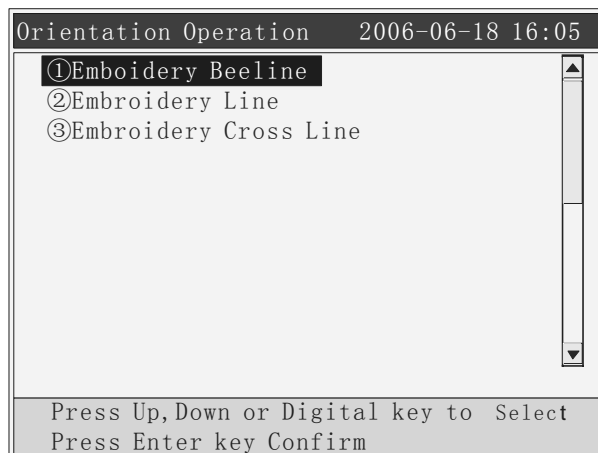
Press [↵] to save the pattern.

4.9 Embroider beeline Operation

This operation is only available in the Embroidering Pattern Status. This function is mainly used to facilitate the positioning of embroidering materials.

There are 3 operations: embroidering the beeline, embroidering right angle line and embroidering cross line.

In the Machine Parameters menu, press [▲] [▼] to move the cursor or (9) to select the operation and then press [↵], see the figure below:

```
Orientation Operation       2006-06-18 16:05
   ①Emboidery Beeline                       ▲
   ②Embroidery Line
   ③Embroidery Cross Line




                                            ▼
   Press Up,Down or Digital key to  Select
   Press Enter key Confirm
```

4.9-1 Embroider beeline

Embroidering Beeline is to set straight line embroidery for positioning operation through

manual shifting of the frame.

In the Beeline Operation menu, press ▲ ▼ to move the cursor or ① to select the operation and then press ↵, see the figure below:

```
Working Status              2006-06-18 16:05
┌──────────────────────┐ ┌───────────────────┐
│                      │ │001#ABCD1234       │
│                      │ │25600            0 │
│  ┌─────────────────┐ │ ├───────────────────┤
│  │Message          │ │ │REP.:X:01Y:01      │
│  │                 │ │ │Speed:        750  │
│  │ Move to Start,Press│ │Time: 0:00:00      │
│  │ Enter Key.      │ │ │Number:         0  │
│  │                 │ │ │Total ST:          │
│  │  Enter    Esc   │ │ │                0  │
│  └─────────────────┘ │ ├───────────────────┤
│                      │ │  1 001     1 2    │
│                      │ │AX: +       0.0    │
│                      │ │AY: -       0.0    │
└──────────────────────┘ └───────────────────┘
  ║↕  ║A║  STOP  F  ▶▶  100°  ▱  ▱
```
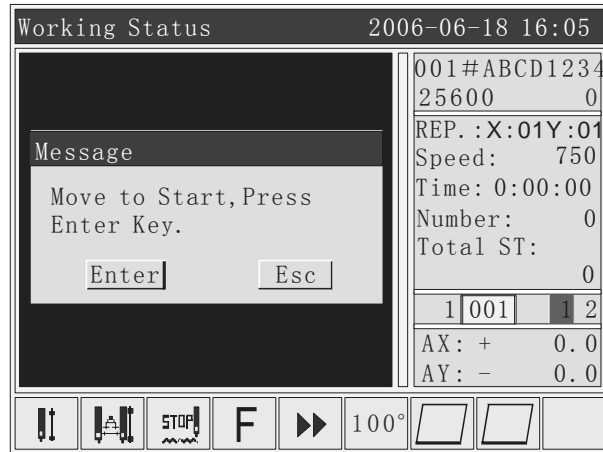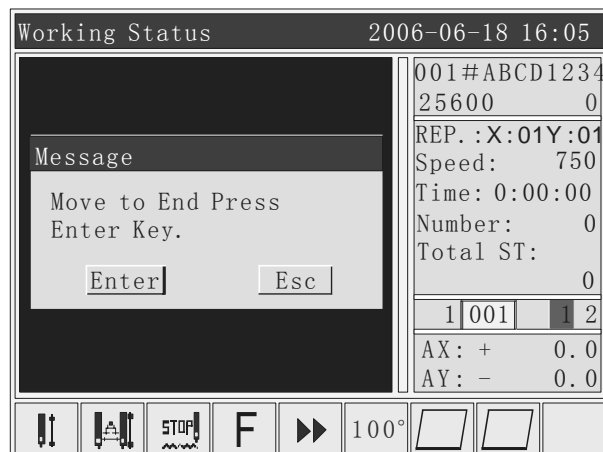
Press ▲ ▼ ◀ ▶ to shift the frame to the starting point of the beeline and then press

↵ to enter the next step, see the figure below:

```
Working Status              2006-06-18 16:05
┌──────────────────────┐ ┌───────────────────┐
│                      │ │001#ABCD1234       │
│                      │ │25600            0 │
│  ┌─────────────────┐ │ ├───────────────────┤
│  │Message          │ │ │REP.:X:01Y:01      │
│  │                 │ │ │Speed:        750  │
│  │ Move to End Press│ │ │Time: 0:00:00      │
│  │ Enter Key.      │ │ │Number:         0  │
│  │                 │ │ │Total ST:          │
│  │  Enter    Esc   │ │ │                0  │
│  └─────────────────┘ │ ├───────────────────┤
│                      │ │  1 001     1 2    │
│                      │ │AX: +       0.0    │
│                      │ │AY: -       0.0    │
└──────────────────────┘ └───────────────────┘
  ║↕  ║A║  STOP  F  ▶▶  100°  ▱  ▱
```

Press ▲ ▼ ◀ ▶ to shift the frame to the end point of the beeline and then press

Enter to complete the setting of the end point of the beeline. After the setting, you can pull the bar for embroidery.

4.9-2 Embroider Right Angle Line

In the Beeline Operation menu, press ▲ ▼ to move the cursor or ② to select the operation and then press ↵ g, see the figure below:

```
Orientation Operation      2006-06-18 16:05
  ①Emboidery Beeline
  ②Embroidery Line
  ③Embroidery Cross Line
         Input

         Input X,Y Dietance:
         X: 0.0        Y: 0.0

             Enter          Esc

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Press ◀ ▶ to select inputting in the X or Y direction, press **0** - **9** to input the distance in X or Y direction, press +/− to change the direction of embroidery, press ↵ upon completion, press ▲ ▼ ◀ ▶ to shift the frame to the intersection of the right angle lines and then pull the bar for embroidery.

4.9-3 Embroider   Cross Line

In the Beeline Operation menu, press ▲ ▼ to move the cursor or ③ to select the operation and then press ↵, see the figure below:
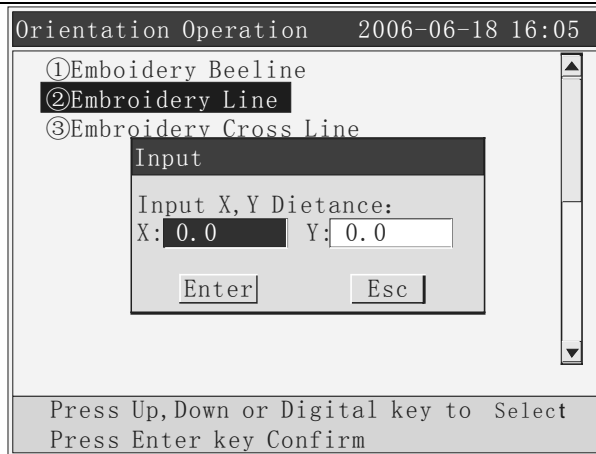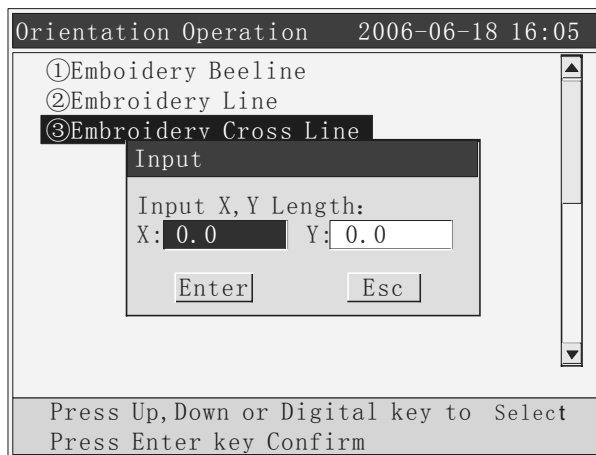
```
Orientation Operation      2006-06-18 16:05
  ①Emboidery Beeline
  ②Embroidery Line
  ③Embroidery Cross Line
         Input

         Input X,Y Length:
         X: 0.0        Y: 0.0

             Enter          Esc

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

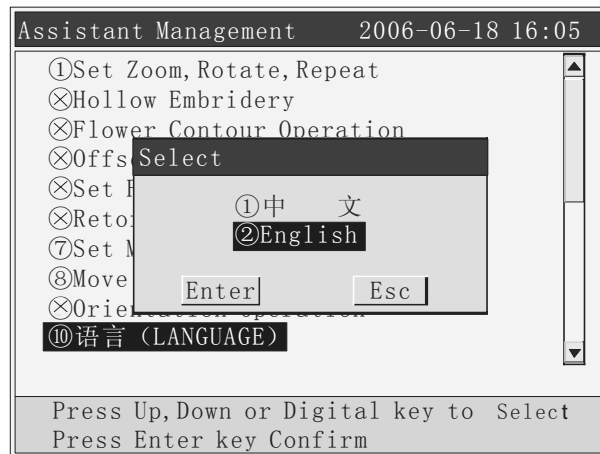Press ◀ ▶ to select inputting in the X or Y direction, press **0** - **9** to input the length and width of the cross line and then press ↵ for confirmation, press ▲ ▼ ◀ ▶ to shift the frame to the center of the cross line and then pull the bar for embroidery.

4.10 Languages

This system supports Chinese and English menus.

In the Auxiliary Management menu, press ▲ ▼ to move the cursor or **0** to select

the operation and then press [↵], see the figure below:

```
Assistant Management        2006-06-18 16:05
 ①Set Zoom,Rotate,Repeat                    ▲
 ⊗Hollow Embridery
 ⊗Flower Contour Operation
 ⊗Offs┌Select────────────────────┐
 ⊗Set │                          │
 ⊗Reto│      ①中    文           │
 ⑦Set │      ②English            │
 ⑧Move│                          │
 ⊗Orie│   Enter        Esc       │
 ⑩语言│（LANGUAGE）              │
      └──────────────────────────┘▼
 ────────────────────────────────────────
 Press Up,Down or Digital key to  Select
 Press Enter key Confirm
```

Press [▲] [▼] to move the cursor or ① or ② to select language and then

press [↵]. The menu will automatically be switched into the selected language.

4.11 Shift the Frame When Stopping at Lower Position

During batch embroidery that requires frame shifting when the needle stopped at the lower

position, it can be achieved through the following operation:

The frame can only be shafted when main shaft is within 160°-180°.

Note: make sure to release all clamps used to fix the embroidery materials, otherwise, the

needle may be broken and the material may be damaged.

In the Auxiliary Management menu, press [PU] to turn to the next page, press [▲] [▼] to

move the cursor or ① to select the operation and then press [↵], see the figure below:

```
Working Status              2006-06-18 16:05
┌──────────────────────┐┌──────────────────┐
│                      ││001#ABCD1234      │
│                      ││25600           0 │
│                      │├──────────────────┤
│ ┌──────────────────┐ ││REP.:X:01Y:01     │
│ │Message           │ ││Speed:        750 │
│ │                  │ ││Time: 0:00:00     │
│ │ Main Axis not at │ ││Number:         0 │
│ │ 100° Moving?     │ ││Total ST:         │
│ │                  │ ││                0 │
│ │ Enter      Esc   │ │├──────────────────┤
│ └──────────────────┘ ││ 1│001      │1│2  │
│                      │├──────────────────┤
│                      ││AX: +       0.0   │
│                      ││AY: −       0.0   │
└──────────────────────┘└──────────────────┘
 ┌──┐┌──┐┌────┐┌──┐┌──┐┌────┐┌──┐┌──┐
 │I↕││▐A▌││STOP││ F ││▶▶││172°││  ││  │
 └──┘└──┘└────┘└──┘└──┘└────┘└──┘└──┘
```

If you are sure to shift the frame, press [↵] for manual shifting of the frame.

4.12 Set Cyclic Embroidery

In the Auxiliary Management menu, press [PU] to turn to the next page, press [▲] [▼] to

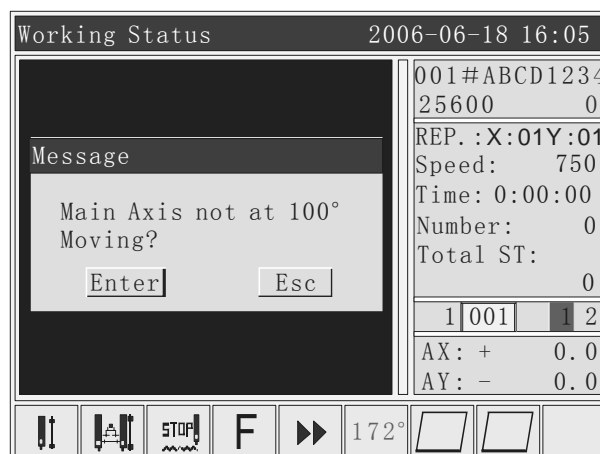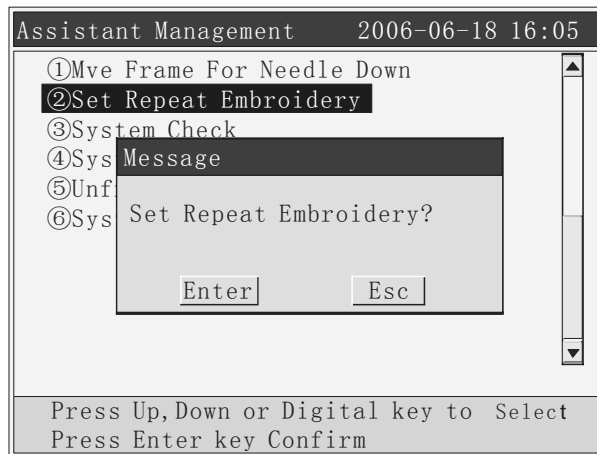move the cursor or ② to select the operation and then press ↵ , see the figure below:

```
Assistant Management        2006-06-18 16:05
  ①Mve Frame For Needle Down                ▲
  ②Set Repeat Embroidery
  ③System Check
  ④Sys Message
  ⑤Unf
  ⑥Sys Set Repeat Embroidery?


        Enter          Esc

                                            ▼

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```

Press ↵ to set cyclic embroidery. You can cancel the cyclic embroidery by repeating the above operation once. This can also be set in Embroidering Parameters.

4.13 System Test

This function should only be used by professional personnel of installation and maintenance, do not try it by yourself.

4.14 User Management

This should only be used by professional personnel, others are prohibited to modify them without permission, or the machine may work abnormally.

4.15 Cancel   User Limitation

Before expiry of the limitation, if you have the password for canceling the limitation, you can cancel the limitation following the prompts.

In the Auxiliary Management menu, press ⟳PU to turn to the next page, press ▲ ▼ to move the cursor or ⑤ to select the operation and then press ↵ , see the figure below:

```
Assistant Management        2006-06-18 16:05
  ①Mve Frame For Needle Down                ▲
  ②Set Repeat Embroidery
  ③System Check
  ④Syst Message
  ⑤Unfr  No. :TZA67018
  ⑥Syst  Unfree Password:


         Enter          Esc

                                            ▼

  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```
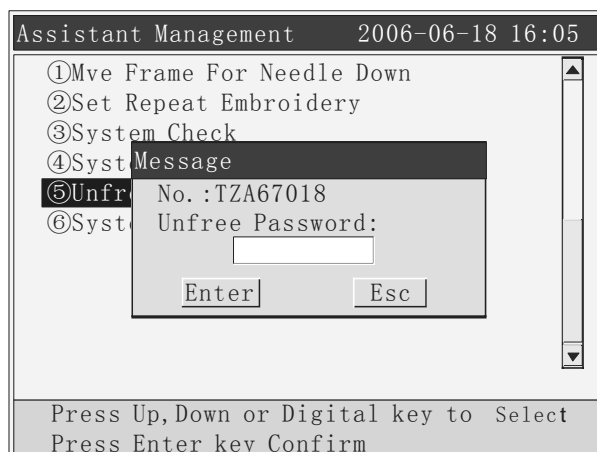
If the machine is not limited, the system will prompt "machine limitation cancelled", if the

limitation is not cancelled, the Cancel Limitation menu as shown above will appear, the digit represents the times for the limitation password, the user can receive the password from the manufacturer by providing the manufacturer with the times before canceling the limitation and the serial number of the machine (please refer to the system information). Press **0** - **9** to input the password and press ⏎ for confirmation, if the password is correct, system will give prompt, then the limitation has been cancelled, otherwise, error message will be given.

If the limitation of the machine expires during the operation, The system will lock the machine and ask the user to input password for canceling the limitation, see the figure below:

```
Working Status              2006-06-18 16:05
┌─────────────────────────┐ ┌──────────────┐
│                         │ │001#ABCD1234  │
│                         │ │25600        0│
│ Message                 │ ├──────────────┤
│ Sorry System is Locked  │ │REP.:X:01Y:01 │
│ Please Contact Provider!│ │Speed:     750│
│ No.:TZA67018  Number:1  │ │Time: 0:00:00 │
│ Input Password:         │ │Number:      0│
│ ┌─────────────┐         │ │Total ST:     │
│ └─────────────┘         │ │             0│
│  Enter        Esc       │ ├──────────────┤
│                         │ │ 1│001│ 1│2   │
│                         │ │AX: +     0.0 │
└─────────────────────────┘ │AY: -     0.0 │
┌──┬───┬────┬──┬──┬────┐    └──────────────┘
│▮↕│▮▲▮│STOP│F │▶▶│100°│ ▱  ▱
└──┴───┴────┴──┴──┴────┘
```

Input the password provided by the supplier to cancel limitation of the machine.

4.16 System Information

The system information includes: Machine number, version information, serial number, system upgrading and manufacturer information.
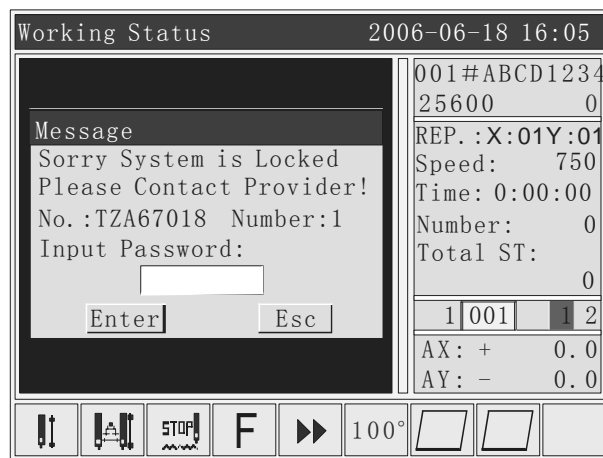
In the Auxiliary Management menu, press (PU) to turn to the next page, press △ ▽ to move the cursor or ⑥ to select the operation and then press ⏎, see the figure below:

```
System Information          2006-06-18 16:05
  ①Machine No.
  ②IP Set
  ③Equipment Name
  ④Version Infomation
  ⑤System No.
  ⑥System Update
  ⑦Factory information




  Press Up,Down or Digital key to  Select
  Press Enter key Confirm
```
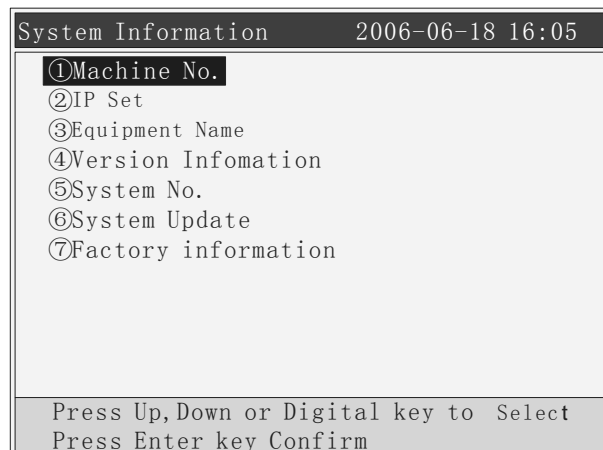
4.16-1 Machine Number

The machine number is the sole number the user set for each machine when multiple machines are combined together for communication with PC for pattern management. Press [1] to enter the Machine Number menu, where you can see the machine number of the machine, the default number is 1. Press [↵] to set the machine number, a small keyboard dialog box will pop up, press [△] [▽] [◁] [▷] to select one letter and press [▸▸] to select and input the letter into the text box. After the setting, press [↵] to save it.

4.16-2 IP setting.

Set the IP address of this system, you only can modify the last number , the system only support max 256 sets of internet connection equipments, address range0-255.

4.16-3 Machine names:

Setting method refers to the machine serial numbers.

4.16-4 Version Information

This function is used to check the version information of the software of the system.

4.16-5 Serial Number

This function is used to check the serial number of the motherboard of the system.

4.16-6 System Upgrading

You can get the software of the latest version of the control system from the supplier to get some upgraded new functions.

Before the upgrading, please insert the U-disc storing the same upgrading files to the current system into the USB interface.

The upgrading files must be placed in the root directory of the U-disc.

In the System Information menu, press [△] [▽] to move the cursor to select the operation and then press [↵],the system shows that the current software will be upgraded.

Press [↵] and the system will prompt whether to upgrade, see the figure below:

Press [↵] to start upgrading, pay attention to the prompts in the dialog box.

The upgrading lasts about 5 minutes, do not cut the power or plug the U-disc out during the

upgrading.

Upon completion of the upgrading, the menu will automatically turn to the Disc Operation menu.

4.16-7 Manufacturer Information

This function shows related information of the manufactures.

Part 5 Embroidering Status

There are two statuses of embroidery: Embroidering Pattern status and Embroidery Preparation Status, both can be switched by pressing the "Embroidery Preparation" key.

In the Embroidering Pattern status, the user can carry out operations related to the embroidery; In the Embroidery Preparation Status, the user can set embroidering parameters for the pattern to be embroidered or return to the Pattern Management menu.

5.1 Switching between the Embroidery Preparation Status and the Embroidering pattern status

5.1-1 Embroidery Preparation Status→ Embroidering pattern status

After selecting the pattern from the memory, the system will enter the Embroidery Preparation menu, see the figure below:
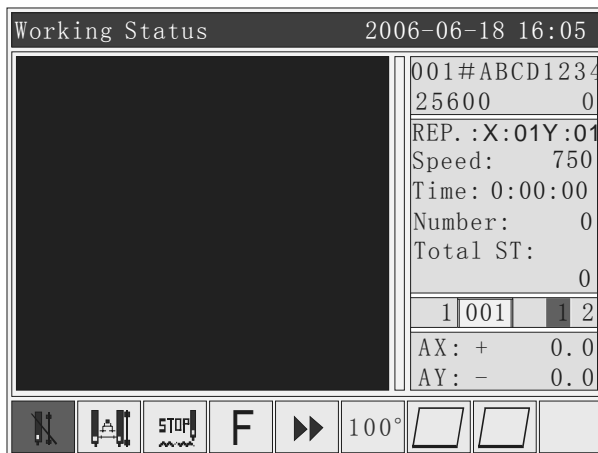
Press , a pop-up menu will appear to prompt whether to enter the Embroidering Pattern status, see the figure below:
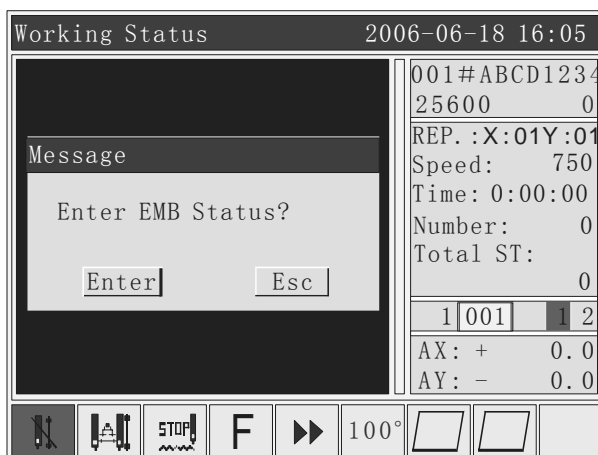
Press to enter the Embroidering Pattern status, press to return to the Embroidery Preparation Status menu.

5.1-2 Embroidering pattern status→ Embroidery Preparation Status

Please see the figure below for the Embroidery Status menu:

In the Embroidery Status menu, press [icon] and a dialog box will pop up, inquiring whether to enter the Embroidery Preparation Status, see the figure below:

Press [icon] to enter the Embroidery Preparation Status, press [ESC] to return to the Embroidering Pattern status.

5.2 Embroidery Preparation Status

In the Embroidery Preparation Status, you can set parameters of the pattern to be embroidered including direction, rotation, magnifying and repetition etc..

The pattern parameters can be set as required, or you can directly enter the Embroidering Pattern status without setting the parameters.

5.3 Embroidery Running Status

In the Embroidery Running Status, only the operation for the lifting speed of the main shaft is available.

Press [icon] or [icon] to increase or decrease the rotating speed of the main shaft, press [icon]

to select high or low speed of lifting.

5.4 Start and stop embroidering

After setting all parameters related to the embroidery, you can start embroidering

Under the Embroidering pattern status, when the machine stops: Press "start" button to start embroidering job ,press "stop "button to back stitch

Under the Embroidering pattern when back stitching: press "stop "button to stop back stitching.

Under the Embroidering Pattern status, when machine running: Press "start" button more than 3 seconds, the main shaft will start embroidering job at the minimum speed; press "stop "button to stop embroidering job.

5.5 Machine Head Indicator lights

when working status, the indicator light is green.

Encountering thread break while embroidering, the indicator light will be red

5.6 Switch Control and Indicators of the Sequin Machine Head

When turning the switch from the upper position to the middle position, the indicator is green and the undercarriage is set down (the machine lock is unlocked), turn the switch downward once, the sequin motor will send out the sequin once; turn the switch downwards and hold for above 2 seconds, the indicator will turn orange, release the switch, the undercarriage will automatically rise (when air pressure exits).

When the switch is at the middle position and sequin embroidery has not started, the indicator is orange and the undercarriage is at the upper position, waiting for sending the sequins. When sequin embroidery is started, the undercarriage will be set down automatically and the indicator will turn green.

When the sequin machine head switch is at the upper position, the indicator will go out and the undercarriage is turned off (the undercarriage will automatically rise upon air pressure).

Part 6   Hat frame switch

Under embroidering preparation status, press "hat frame switch "button,(attention: before this operation, please confirm whether you install the mechanical parts of hat frame, or it will cause mechanical parts damages). if now it is in the the state of adult clothes embroidering mode , it will be switched to hat frame embroidering mode, displaying "whether switch to hat frame embroidering mode", press "enter" button, after embroidering frame finding out the absolute origin point , finally stop at that central position.

if now it is in the the state of hat frame embroidering mode , it will be switched to adult clothes embroidering mode, displaying "whether switch to adult clothes embroidering mode", press "enter" button, after embroidering frame finding out the absolute origin point , finally stop at that position.

Part 7 Set Pattern Directions

In the Embroidery Preparation Status, press ⬚ to change the direction of the pattern. Each time you press the key, the direction will be changed once.

There are 8 directions available: 0° (default), 90°, 180°, 270°, 0° mirror, 90° mirror, 180° mirror, 270° mirror, which are cyclic.

Part 8 Color Changing Settings

When the pattern embroidery is automatically started in the auto color changing mode, before the embroidery, you need to set the color changing order. If the order is not set, the system will start embroidery according to the color changing order for embroidering the previous pattern. If none of the needles related to the color changing order are set, the system will carry out mono-color embroidery with the current active needle. When multiple times of color changing are carried out by several needles repeatedly, you only need to set one circulation of color changing and the system will automatically repeat it. Currently, the system can support up to 200 times of color changing.

In the Embroidering Pattern status, press ⬚ to enter the Color Changing Settings menu, see the figure below:

```
Set Stitch Color            2006-06-18 16:05
    ①Set Color Order
    ②Replace Stitch
    ③Modify Stitch
    ④Patch Set




    Press Up,Down or Digital key to  Select
    Press Enter key Confirm
```
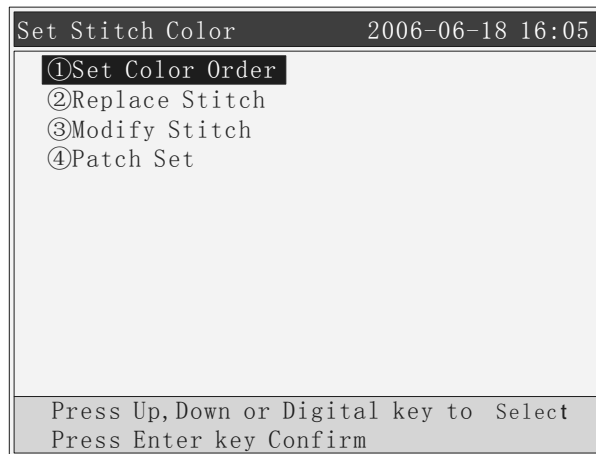
8.1 Setting Order of Color Changing (Needles) and Patching Embroidery

In the Color Changing Settings menu, press ▲ ▼ to move the cursor or ① to select the operation and then press ↵, see the figure below:

```
Set Stitch Color            2006-06-18 16:05
001 2 002 5 003 4 004 6 005 8 006   007    ▲
008   009   010   011   012   013   014
015   016   017   018   019   020   021
022   023   024   025   026   027   028
029   030   031   032   033   034   035
036   037   038   039   040   041   042
043   044   045   046   047   048   049
050   051   052   053   054   055   056
057   058   059   060   061   062   063
064   065   066   067   068   069   070    ▼
        Press Digital key to  Select
        Press Enter key Confirm
```
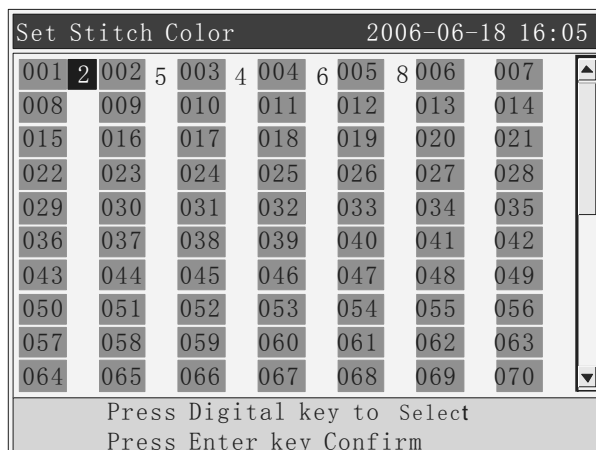
001～200 indicates the times of color changing, when the menu is opened, the cursor will automatically start following the order of the last color changing setting, press **0** - **9** to input the needle number corresponding to the current color changing order. If there are over needles, press **+/−** for the operation (e.g., if there are 10 needles, press **+/−** + **0** key for Color Changing Settings to operate), the cursor will automatically move to the next color changing order. During the setting, if the previous needle number is wrong, press △ ▽ ◁ ▷ to move the cursor to the position of the wrong needle number for modification.

If any color changing needle needs **frame shifting for patching offset (patching embroidery)**, move the cursor to the required needle and press ⊛ once, the background of the current needle number will turn red. To cancel the frame shifting for patching offset setting, just press ⊛ again. Press ↵ to save the current setting, **in this function, the system will save the data prior to the location of the cursor.**

In the Embroidering Pattern menu, the background of the needles with frame shifting for patching offset in the color changing order is red, and that of needles without frame shifting for patching offset is yellow.

8.2 Needle Replacement

This function is mainly used to modify a certain needle in all color changing sequences once and for all. In the Color Changing Setting menu, press △ ▽ to move the cursor or **4** to select the operation and then press ↵ to enter the Modify Color Changing Setting menu, see the figure below:

```
Set Stitch Color              2006-06-18 16:05
    ①Set Color Order
    ②Replace Stitch
    ③Modify Stitch
    ④Patch Input
          ST A Change ST B
              B: 1   A: 1
             Enter        Esc


    Press Up,Down or Digital key to  Select
    Press Enter key Confirm
```
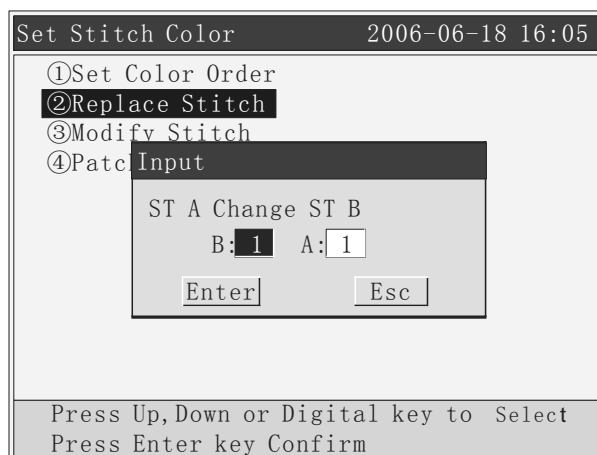
Press **0** - **9** to input the needle to be replaced, and then press **0** - **9** to input

the needle to be used and then press [⏎] to complete the replacement of needle.

8.3 Needle Modification

Upon completion of color changing settings or if it's required to modify a certain needle during the embroidery, you can use this function for modification.

In the Color Changing Settings menu, press [▲] [▼] to move the cursor or ③ to select the operation and then press [⏎] to enter the Needle Modification menu, press [▲] [▼] [◀] [▶] to move the cursor to the needle to be modified, press **0** - **9** to modify, after the modification, press [⏎]. Upon completion, the buzzer will ring "Di, Di, Di", and the system will automatically enter the Embroidering Pattern status.

If any color changing needle needs frame shifting for patching offset **(patching embroidery)**, move the cursor to the required needle and press ⏩ once, the background of the current needle number will turn red. To cancel the frame shifting for patching offset, press ⏩ once again.

Part 9 Color Changing Modes

Color changing modes means the mode used by the machine during the embroidery to carry out color changing modes.

There are 3 color changing modes: automatically started auto color changing, manually started auto color changing and manually started manual color changing.

Manually started auto color changing and manually started manual color changing are only valid for the currently embroidered pattern, after changing the pattern or the machine is powered on again, it will automatically return to the automatically started auto color changing mode.

In the Embroidering Pattern Status, each time you press [icon], the embroidery mode will be changed once. See the figure below:

Manually Started Auto Color Changing
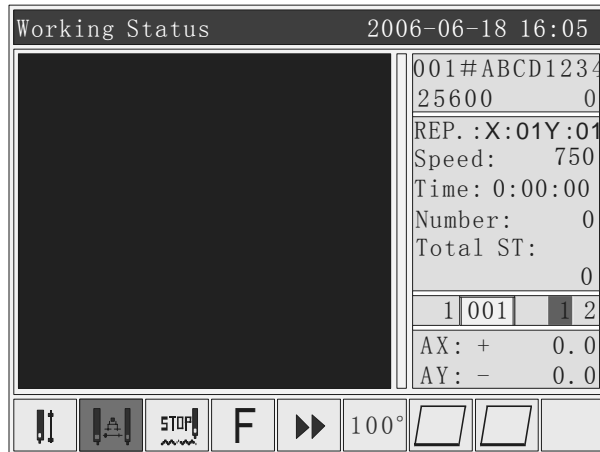
Manually Started Manual Color Changing

Automatically Started Auto Color Changing

```
Working Status          2006-06-18 16:05

                    48   001#ABCD1234
                         25600         0
                         REP.:X:01Y:01
                         Speed:      750
                         Time: 0:00:00
                         Number:       0
                         Total ST:
                                       0
                         1 001      1 2
                         AX: +      0.0
                         AY: −      0.0

  ↕   ⊞   STOP   F   ▶▶  100°  ▱  ▱
```
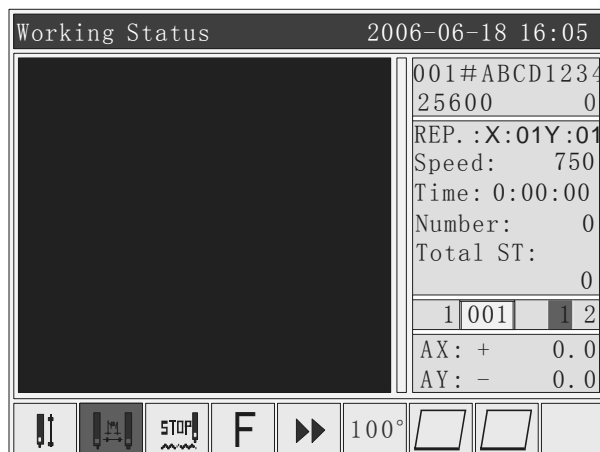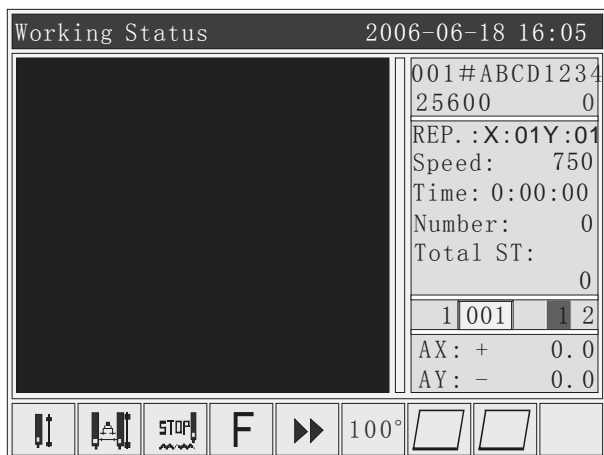
Part 10 Return to the Stop Point

When the embroidery stops at mid way, after manually shifting the embroidery frame, if you

need to return to the stop point of embroidery, you can in press to return to the stop point in

the Embroidering Pattern Status.

Part 11   Idle embroidery Switch

The purpose of idle embroidery operation is to realize the embroidery repairing.the user can move the embroidery needle tracking to the specific position through idle embroidering.in the Embroidering Pattern Status, press [icon] to switch to the idle embroidering   status. There are 3 statuses: low-speed, hi-speed idling and normal embroidery. See the figure below:

```
Working Status            2006-06-18 16:05
                          001#ABCD1234
                          25600          0
                          REP.:X:01Y:01
                          Speed:       750
                          Time: 0:00:00
                          Number:        0
                          Total ST:
                                         0
                           1 001    1 2
                          AX: +       0.0
                          AY: -       0.0
  ‖⇕  ‖⌂‖  ⏩‖  F  ▶▶  100°  ▱  ▱
```
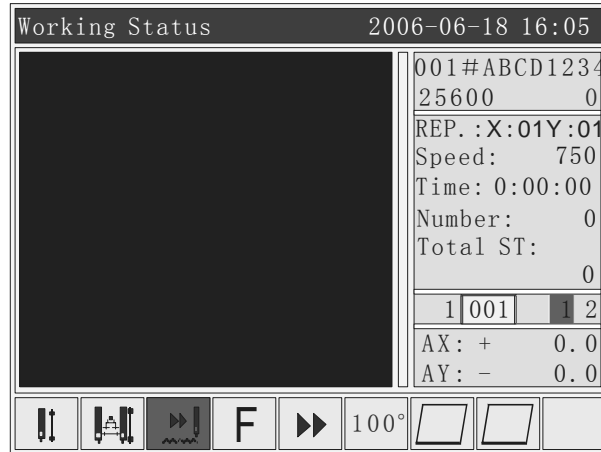
Hi-speed idling status

Pull the bar rightwards (hi-speed idling forward) once, the main shaft and the embroidery frame stay still, the number of stitches of the embroidery ascends, after pulling the bar leftwards to stop the machine, the embroidery frame will directly move to the position of the forward needle tracking.

Pull the bar leftwards (hi-speed idling backward) once, the main shaft and the embroidery frame stay still, the number of stitches of the embroidery descends,   after pulling the bar leftwards to stop the machine, the embroidery frame will directly move to the position of the backward needle tracking.

```
Working Status            2006-06-18 16:05
                          001#ABCD1234
                          25600          0
                          REP.:X:01Y:01
                          Speed:       750
                          Time: 0:00:00
                          Number:        0
                          Total ST:
                                         0
                           1 001    1 2
                          AX: +       0.0
                          AY: -       0.0
  ‖⇕  ‖⌂‖  ▶‖  F  ▶▶  100°  ▱  ▱
```
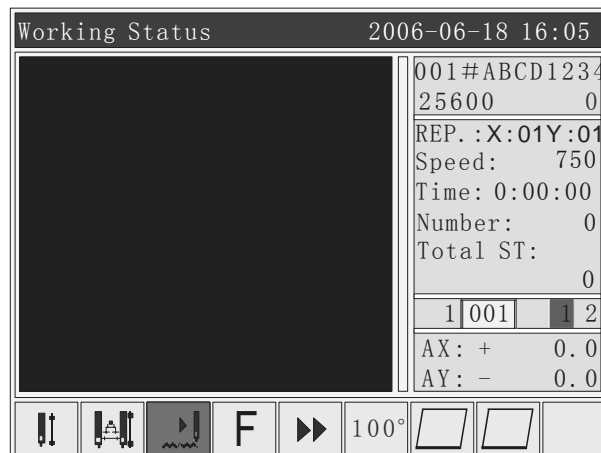
low-speed idling   status

Pull the bar rightwards (low-speed idling forward) once, the main shaft and the embroidery frame stay still, the embroidery frame will move forwards along the embroidery needle tracking, and the pull the bar leftwards to stop the low-speed idling.

Pull the bar leftwards (low-speed idling backward) once, the main shaft and the embroidery frame stay still, the embroidery frame will move backwards along the embroidery needle tracking, and the pull the bar leftwards to stop the low-speed idling.

Part 12 Manual Trimming

Manual trimming can be used to trim both the upper thread and the bottom thread at the same tome or only the bottom thread.

In the Embroidering Pattern Status, press to carry out manual trimming.

Part 13 Origin point Operations

There are 5 functions of the origin point operations: Returning to the origin, Returning to the offset point, setting the origin, auto searching of the   origin and limit checking.

In the Embroidering Pattern Status and then press ⊘, see the figure below:

```
Working Status              2006-06-18 16:05
                                001#ABCD1234
                                25600        0
  Select                        REP.:X:01Y:01
    ①Back Start                  Speed:      750
    ②Back Offset                 Time: 0:00:00
    ③Set Start                   Number:      0
    ⊗Find Start Point            Total ST:
    ⑤Flower Scope Check                       0
                                  1 001    1 2
         Esc                      AX: +      0.0
                                  AY: −      0.0
  ‖↕  ‖⊿‖ STOP  F  ▶▶ 100°  ▱ ▱
```
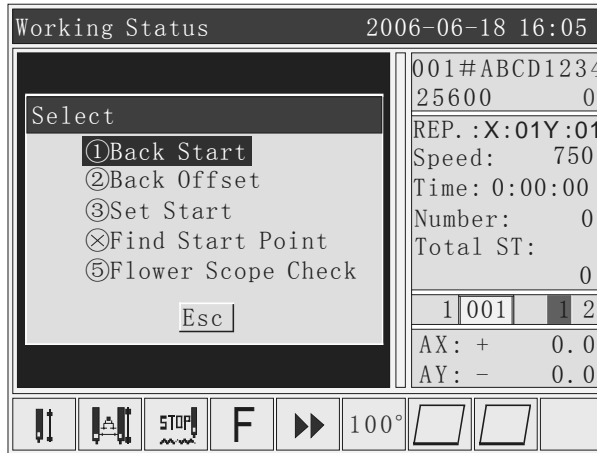
13. 1 Return to the Origin point

During the embroidery, if you need to terminate the embroidery and return to the origin to start new embroidery, the following operations should be followed.

In the Origin Operations menu, press △ ▽ to move the cursor or press ① and then press ⏎, a pop-up dialog box will prompt you whether to terminate the embroidery and return to the origin, see the figure below:

```
Working Status              2006-06-18 16:05
                                001#ABCD1234
                                25600        0
  Select                        REP.:X:01Y:01
  Message                       Speed:      750
                                Time: 0:00:00
  Stop Embrodery.               Number:      0
  Back to Start Position?       Total ST:
                                          0
     Enter        Esc            1 001    1 2
          Esc                    AX: +      0.0
                                 AY: −      0.0
  ‖↕  ‖⊿‖ STOP  F  ▶▶ 100°  ▱ ▱
```
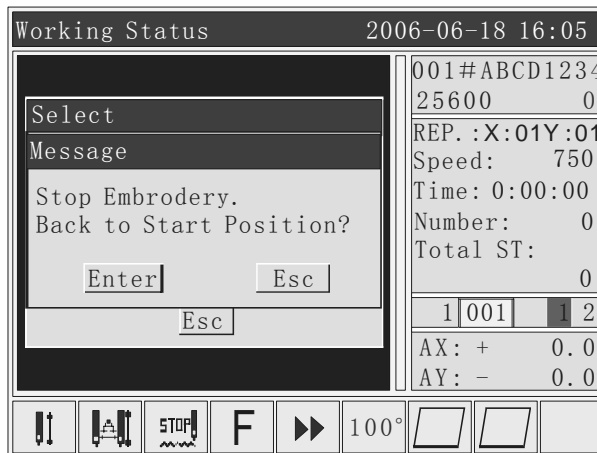
Press ⏎ to return to the origin.

13. 2 Return to the violation Point

During the embroidery, if you need to terminate the embroidery and return to the offset point to start new embroidery, the following operations should be followed.

In the Origin Operations menu, press ▲ ▼ to move the cursor or press ② and then press ↵, a pop-up dialog box will prompt you whether to terminate the embroidery and return to the offset point, see the figure below:

```
Working Status          2006-06-18 16:05
                                001#ABCD1234
                                25600        0
   Select                       REP.:X:01Y:01
   Message                      Speed:     750
    Stop Embrodery.             Time: 0:00:00
    Back to Offset?             Number:      0
                                Total ST:
      Enter        Esc                       0
          Esc                    1 001    1 2
                                AX: +     0.0
                                AY: -     0.0

   I↕  A↕  STOP  F  ▶▶  100°  ▱  ▱
```

Press ↵ to return to the offset point.

13. 3 Set the origin point

After selecting the pattern and entering the embroidery status, the user can set the starting point of embroidery by setting the origin.
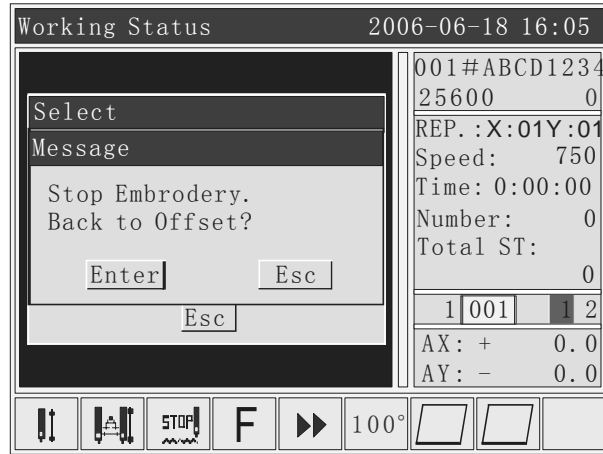
In the Origin Operations menu, press ▲ ▼ to move the cursor or press ③ and then press ↵, see the figure below:

```
Working Status          2006-06-18 16:05
                                001#ABCD1234
                                25600        0
   Select                       REP.:X:01Y:01
   Message                      Speed:     750
    Start Position Has Set      Time: 0:00:00
    Home Key to Start           Number:      0
    Enter Key Reset             Total ST:
          Esc                              0
          Esc                    1 001    1 2
                                AX: +     0.0
                                AY: -     0.0

   I↕  A↕  STOP  F  ▶▶  100°  ▱  ▱
```
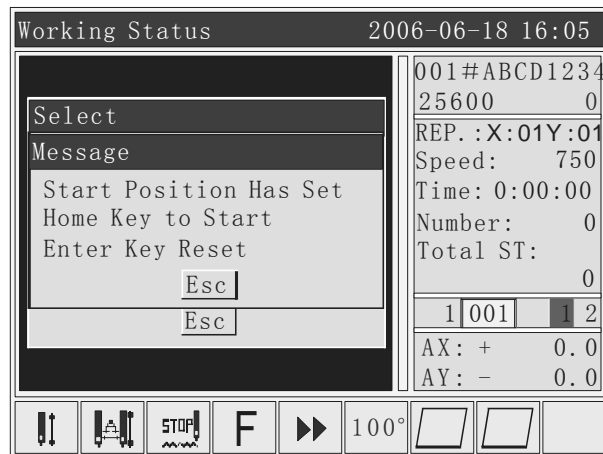
If the origin has been set before, a pop-up dialog box will prompt you whether to return to the preset origin or to reset it, press ↵ to reset the origin.

13. 4 Auto Searching of the Origin (Limited Function)

This function is only available after setting the software limit.

13. 5 Limit Checking

After setting the starting point, if you need to check if the embroidery range of the pattern exceeds the working area or if the currently set starting point will result in limit of position, you can use this function.

In the Origin Operations menu, press ▲ ▼ to move the cursor or press ⑤ and then press ↵ to start checking.

In case the embroidery frame is not at the starting point, the system will automatically return to the origin and start limit checking, if the current pattern has not been designated an origin, the limit checking will be started directly, during the checking, if the currently designated staring point will result in position limit, the system will automatically adjust it and automatically designate the adjusted position as the starting point; if the pattern exceeds the embroidery range, a error message indicating the pattern exceeds the embroidery range will pop up.

Part 14 Shift the Embroidery Frame

In the Embroidering Pattern Status or in any other case when frame shifting is needed, press

△ ▽ ◁ ▷ to carry out frame shifting, press ⊕ to select the speed of shifting.

Part 15 Change Color Manually

In the Embroidering Pattern Status, in the non-operation status of the system, directly press

0 - **9** to carry out manual color changing.

Part 16 Inching

This function is available in both the Embroidering Pattern Status and Embroidery Preparation status for stopping the positioning of the main shaft.

Press ⊘⁄₁₀₊ to carry out inching, see the figure below:

```
Working Status              2006-06-18 16:05

                                   001#ABCD1234
                                   25600         0
                                   REP.:X:01Y:01
     Select                        Speed:      750
                                   Time: 0:00:00
        ①Dot to 100°               Number:       0
        ②Any Digree                Total ST:
                                                 0
           Esc
                                    1 001     1 2
                                   AX: +      0.0
                                   AY: -      0.0

   I‡  │▲│  STOP  F   ▶▶  100°  ▱  ▱
```
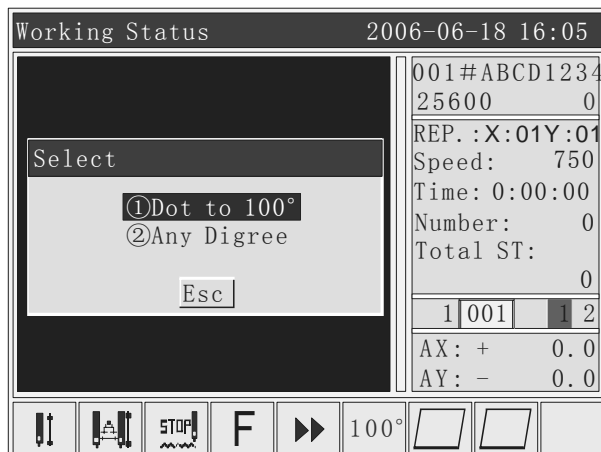
Then you can carry out inching operations as required.

Part 17 Clearing Operations

This function is available in both the Embroidering Pattern Status and Embroidery Preparation status.

Press CL to carry out clearing, see the figure below:

```
Working Status              2006-06-18 16:05

                                   001#ABCD1234
                                   25600          0
                                   REP. :X:01Y:01
   Select                          Speed:       750
                                   Time: 0:00:00
     ①Clear Stastic                Number:        0
     ②Clear X,Y                    Total ST:
                                                  0
            Esc                    1 001        2
                                   AX: +       0.0
                                   AY: -       0.0

   ‖↕  ‖▲‖  STOP  F  ▶▶ 100°  □ □
```
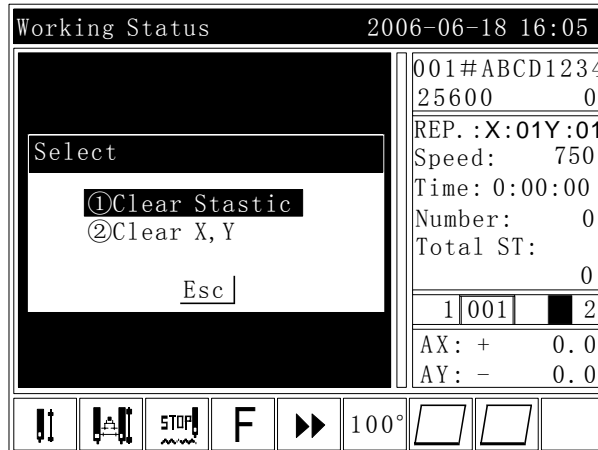
17.1 Clearing Statistics

In the Clear Statistics menu, press ▲ ▼ to move the cursor or press ① and then press ↵ , see the figure below:

```
Working Status              2006-06-18 16:05

                                   001#ABCD1234
                                   25600          0
                                   REP. :X:01Y:01
   Message                         Speed:       750
                                   Time: 0:00:00
   Clear Statistic?                Number:        0
                                   Total ST:
                                                  0
     Enter        Esc              1 001      1 2
                                   AX: +       0.0
                                   AY: -       0.0

   ‖↕  ‖▲‖  STOP  F  ▶▶ 100°  □ □
```
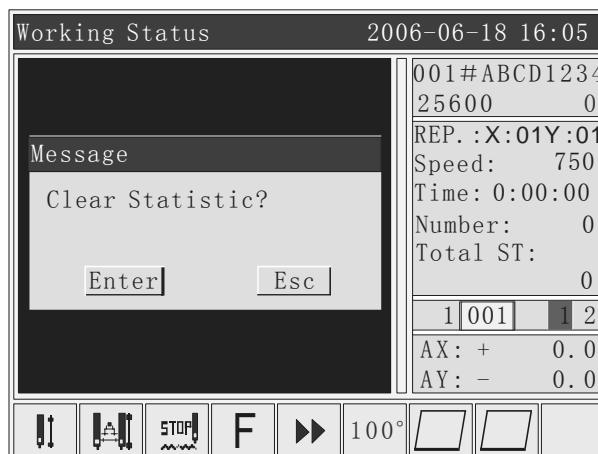
Press ↵ to clear statistics.

17.2 Clearing Displacement

In the Clear Operations menu, press ▲ ▼ to move the cursor or press ② and then press ↵ to clear displacement. And the coordinates of the X-axis and the Y-axis are zeroed.

Part 18 System Initialization

System initialization is to clear all patterns in the memory.

After the **icon** is shown on the machine, press ⓪ for 3 times, after the system initialization, the buzzer will ring "Di, Di, Di", and the system will automatically enter the Import Pattern menu.

Part 19 PC internet connections

19.1 install PC software

Before connecting embroidery control system and PC, you must install PC communication software, (install our EMB_soft.exe software), after finishing installation, there will be short-cut icon of communication software in the PC desktop.

19.2 set IP

19.2-1 Set IP of PC

The IP of PC is 192.168.0.1, or it will not be connected normally.

19.2-2 set IP of embroidery control system

The IP of embroidery control system is 192.168.0.2-192.168.0.255, it can connect 254 sets of embroidery control system maximum.

19.3 set IP of communication software

after opening the communication software, only setting the IP of control system and the IP of communication should be the same , can the machine work properly.
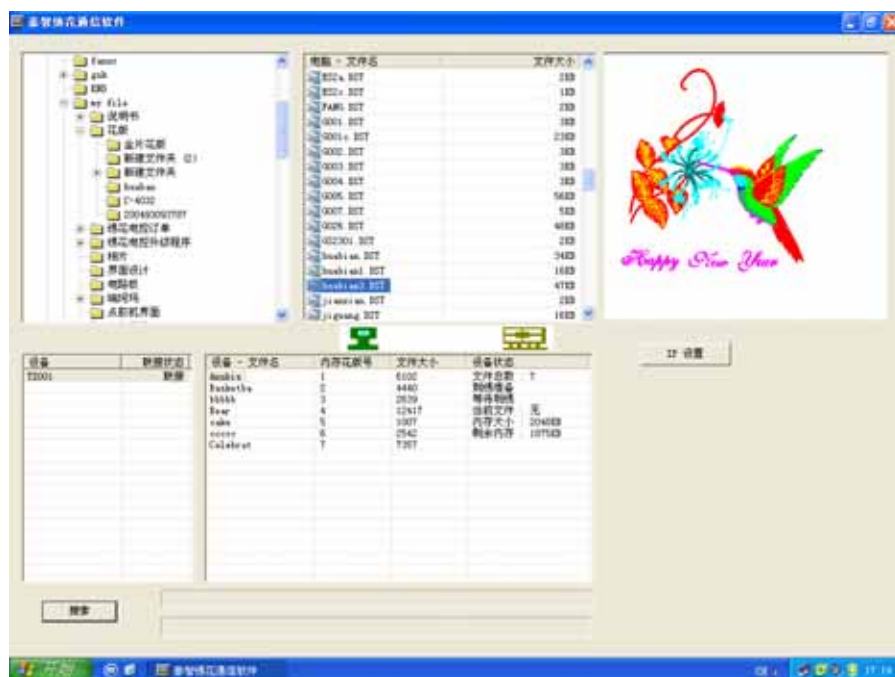
click IP setting button, as following figure:
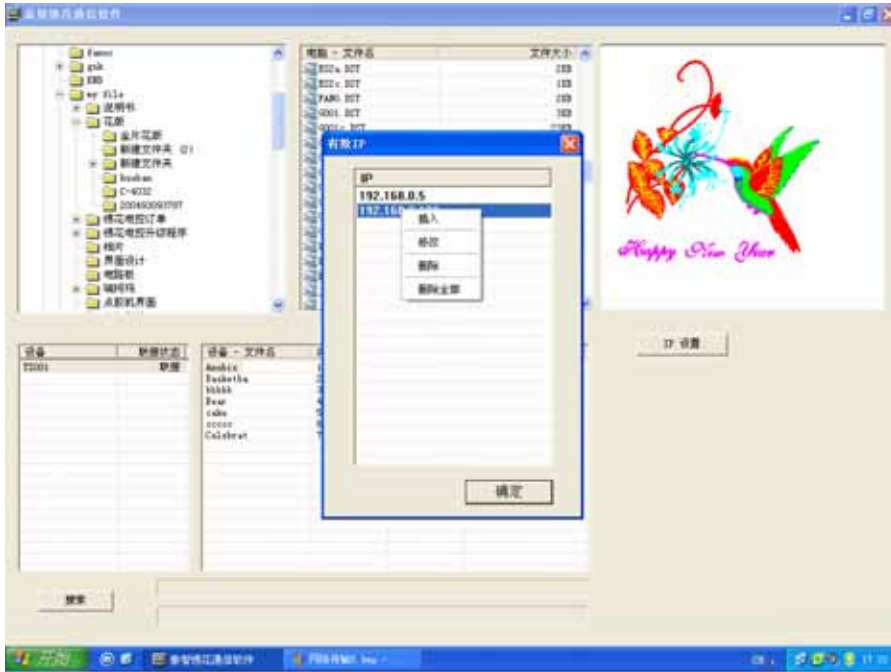
double click or right click mouse to do IP setting, input the last parameter of IP, imputed IP should be the same with the IP of connected control system. As below:
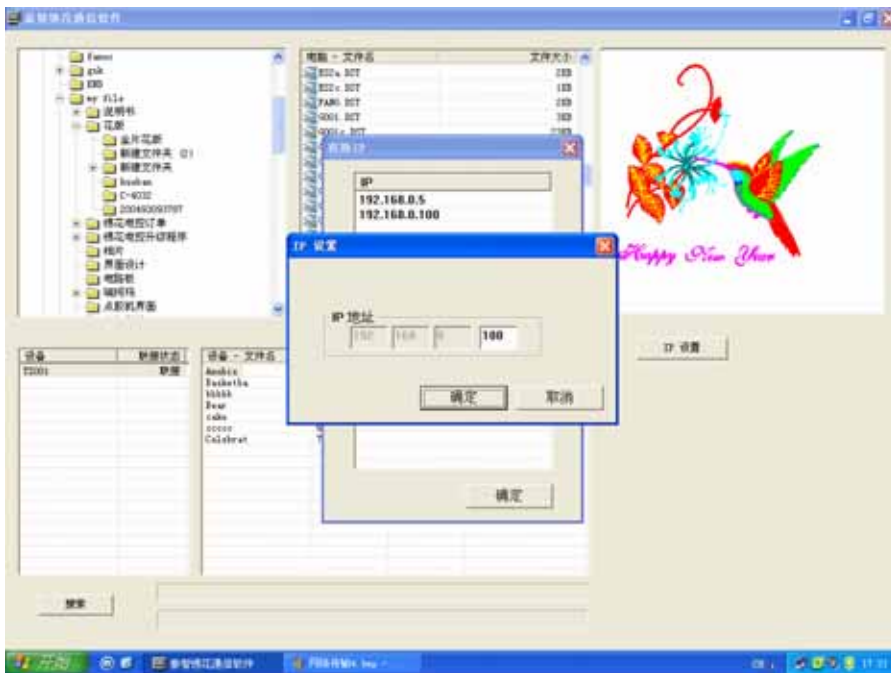
After setting well , click enter button to storage the IP , then you can do the searching operation.

19.3 communication operations

While IP was set well, click "searching" button to search connected equipments, the

searching result will display the connected equipments and corresponding IP. Then, click the equipment you want to communicate, in the right rectangle , it will display the details of connected equipments. Then, you can do transition operations.

While transition, the system should be not working.

Attentive matters while connecting internet:

When using the PC to connect the control system directly, if the PC can not support network auto-adapt. you need to use crossover network cable, (old hardware), If supports ,you can use parallel network cable to connect. (new hardware)

When using LAN internet to connect control system, you should use parallel network cable to connect (standard network cable)

Network cable making method:

Pick the crystal head of the network cable, making the side of copper core face us, from left to right, to mark the 8 cores, No.1- No.8.

Parallel line:

One end: white orange orange , while green,blue, while blue, green, white brown, brown.

Anther end: white orange orange , while green,blue,while blue, green, white brown, brown.

Crossover line:

One end: white orange orange , while green, blue, while blue, green, white brown, brown.

Another end : white green green , white orange, blue,white blue orange, white brown, brown.

Part 20　Appendixes

20. 1 Parameter Table

Parameter	Function	Default Value	Range
Jump Stitch Trim Number	Starting trimming or not upon jumping	3	1-9, no trimming
Trim Top Thread Length	Length of U.T. after trimming, the larger, the longer	3	1-7
L.S Number after Trim	Whether or not to lock the needle at the stitch before the jumping, avoid thread-loose after manual trimming	No	Yes, No
Check Top.Break	Sensitivity of U.T.B. detection	5 stitches	3-9 stitches, no detection
Jump T.B Detect	Whether or not carry out T.B. detection when jumping	No	Yes, No
Far Step EMB Mode	Embroidering in that mode in large stitches	Slow	Slow, jump
Auto Jump Stitchs	When jumping in large stitches, automatically divide a stitch into more that 2 stitches for embroidery when the exceeds the specified length	6.5mm	6.5-8.5mm
Auto Speed Down ST	Slow down the embroidery when a stitch exceeds the specified length	6.0mm	4.0-9.0mm
Back Steps of L.S	How many seconds of reverse stitching before the system automatically carries out continuous reverse stitching	0	0-9
Main Axis Start Speed	Rotating speed of the main shaft when startup	100	60-200
Main Axis Max Speed	Setting max. Rotating speed of the main shaft (limited by the mechanical parameters)	750	550-1300
Move Frame Max Speed	Setting the speed of high-speed frame shifting, the larger, the faster	5	1-9
Same ST Auto Startup	Whether or not to start automatically when meeting needles with the same color changing	Yes	Yes, No
S-Down of Series Jump	The percentage of the current speed to be achieved when continuous jumping	80％	60％-90％
Stop Frame of Moving	Whether or not to stop the machine if pulling the bar when exceeding the frame	Yes	Yes, No
Machine ST Number	Number of needles used by the current embroidery machine	n*	1-15
Sequins Stitch	Whether to used left side, right side or both sides to carry out the sequin embroidery, if	Left*	Left, right, left and right

	the sequin function is disabled in mechanical parameters, this parameter will be invalid		
Sequins Max Speed	The max. Rotating speed of the main shaft during the sequin embroidery	600	300-800
Needle Of Boring	Position of the boring needle using the boring knife (no T.B. detection is carried out)	0	0-n
Needle Of Cord	The needle position when cord embroidery is carried out (auto slowdown)	0	0-n
Max Speed Of Cord	The max. Rotating speed of the main shaft when cord embroidery is carried out	300	300-600
Repeat Embroidery	Whether or not to continue with the embroidery upon completion of a pattern	No	Yes, No
Display Stitch Number	Whether or not to display the number of stitches of the pattern in the embroidery menu	Yes	Yes, No
Filter 0 Stitch Data	Whether or not to sew empty stitches	Yes	Yes, No
Color Motor Speed	The color changing speed when using stepping motor for the color changing	5	0-9
Embroidery Background	Background color of the embroidery menu	Black	Black, White
Frame Control Type	Mode of frame shifting, you can adjust it according to the actual effect	F5*	F1-F5
Frame Move Angle	Angle of the frame motor when starting the shifting of the frame, the greater load the frame bears, the smaller the angle is, you can adjust it according to the actual effect	230*	220-270°
Voltage Of Solenoid	Adjusting the voltage of the solenoid at the machine head, the larger, the higher	2	0-5
Open Trim Function	Whether to use the trimming function of the machine	Yes	Yes, No
Screen Saver Wait	If not pressing any key for a certain period of time, the screen saver will be started	Off	5, 10, 20, 30 minutes, off
Thread Break Up	Lift the undercarriage when T.B. during the sequin embroidery or not	Yes	Yes, No
Move Frame Repay Times	Positive compensation for thin materials, negative compensation for thick materials, you can adjust it according to the actual situation	0	5%, 0, -5%, -10%
repeat embroidery frame when	when connecting the power, embroidery auto find the frame origin	yes*	yes、no

connecting power			
Adult embroidery frame type	Choose right embroidery frame to protect the machine (Under hat frame embroidery status, the parameter is not valid)	-*	A、B、C、D
Hat frame X direction position	the distance between hat frame center and X direction absolute origin	-*	0-300mm
Hat frame Y direction position	the distance between hat frame center and Y direction absolute origin	-*	0-300mm
Hat frame X direction size	Max embroidery size of Hat frame X direction size (Under adult clothes embroidery status, the parameter is not valid)	-*	0-150mm
Hat frame Y direction size	Max embroidery size of Hat frame Y direction size (Under adult clothes embroidery status, the parameter is not valid)	-*	0-150mm
Lifting mode	sequin lifting mode	-*	motor、valve

n* number of needles used by the embroidery machine (no default value)

-* to be set according to the requirement (no default value)

20. 2 System Errors and Solutions

Error	Cause	Solutions
The main shaft is not at 100°	The main shaft fails to stop at 100	Inch or manually rotate the main shaft to 100°
The main shaft fails to rotate	1. There's no signal or power supply of the main shaft controller 2. There's no power input or wrong power input of the main shaft motor 3. The controller or the main shaft motor is damaged 4. The encoder is not connected	1. Check the signal cable or electric wire of the main shaft controller 2. Check the input power supply of the main shaft motor 3. Replace the controller or the motor 4. Connect the encoder correctly
The main shaft rotates reversely	1. The output power supply of the inverter is connected reversely 2. Parameters of the servo controller are wrongly set 3. The A/B phases of the encoder are reversely connected	1. Adjust any two phases of the output end UVW of the inverter 2. Reset the parameters of the servo controller 3. Adjust the connection of A/B phases of the encoder

No zero position of the encoder	1. The zero position signal of the encoder is outputted 2. There's error on the connection between the encoder and the main board	1. Replace the encoder 2. Check or replace the connection cables
Color changing time out	1. The color changing motor fails to rotate 2. The mechanical components for color changing are stuck 3. There's error on the connection between the color changing motor and the power supply board	1. Check the color changing motor or the connection cables 2. Repair or replace the components being stuck 3. Check or replace the connection cables
No needle position	1. The position of the in-position detection sensor is wrong 2. The needle position detection board is damaged	1. Adjust the position of the needle position sensor 2. Replace the detection board
Needle position not well-placed	1. The position of the in-position detection sensor is wrong 2. The needle position detection board is damaged	1. Adjust the position of the in-position sensor 2. Replace the detection board
X motor driver error	1. X driver over-voltage or over-current protection 2. The driver is damaged	1. Check the input power supply of the driver and turn the power on again 2. Replace the driver
Y motor driver error	1. Y driver over-voltage or over-current protection 2. The driver is damaged	1. Check the input power supply of the driver and turn the power on again 2. Replace the driver
Thread hooking not in position	1. Insufficient approach switch detection 2. The approach switch is damaged	1. Manually adjust the thread hooking rod in position 2. Replace the approach switch
Thread hooking motor error	Thread hooking motor or connection error	Check or replace the connection cables
Trimming not in position	1. Insufficient approach switch detection 2. The approach switch is damaged	1. Manually adjust the trimming rod in position 2. Replace the approach switch
Sequin needle position error	Sequin embroidery needle setting error	Reset the sequence of color changing
+X limit error	+X limit	Manually shift the embroidery frame inversely
-X limit error	-X limit	Manually shift the embroidery frame to the inverse direction
+Y limit error	+Y limit	Manually shift the embroidery frame to the inverse direction
-Y limit error	-Y limit	Manually shift the embroidery frame to the inverse direction