

**Manual Book for
Computerized Quilting Machine**

Content

Chapter I Summarize

1.1 Warning & Notice

Attention for use	

Attention for installation	

Attention for transport	

Attention for connection	
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Attention for operation	

Attention for maintenance	
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Attention for scrap	
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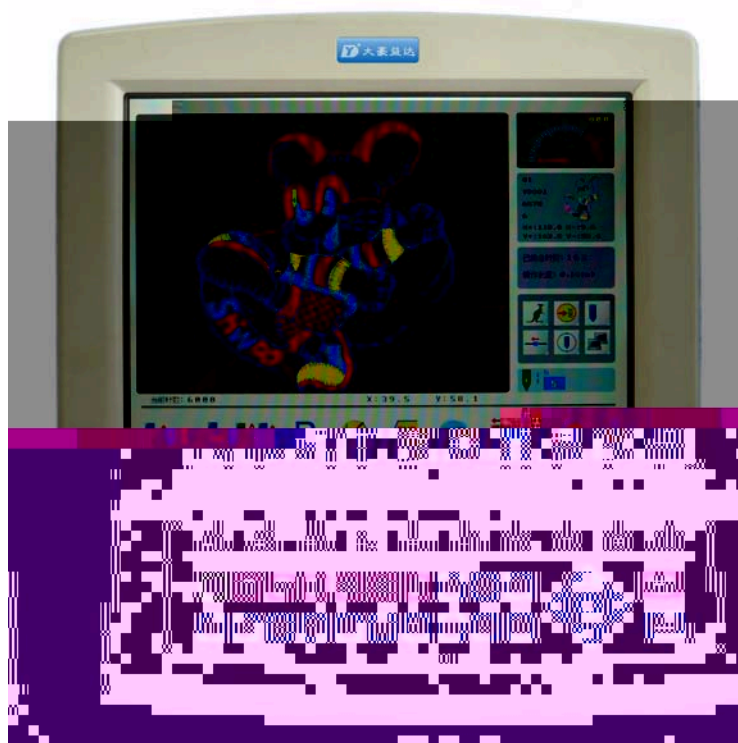
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1.2 Characteristic

1.3 Specification

Chapter II Embroidery guide



2.1 Operation box introduction





Notice If power is off or pull out when formatting USB disk, it may damage USB dick.

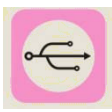
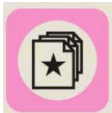
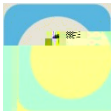
2.2 Control panel introduction



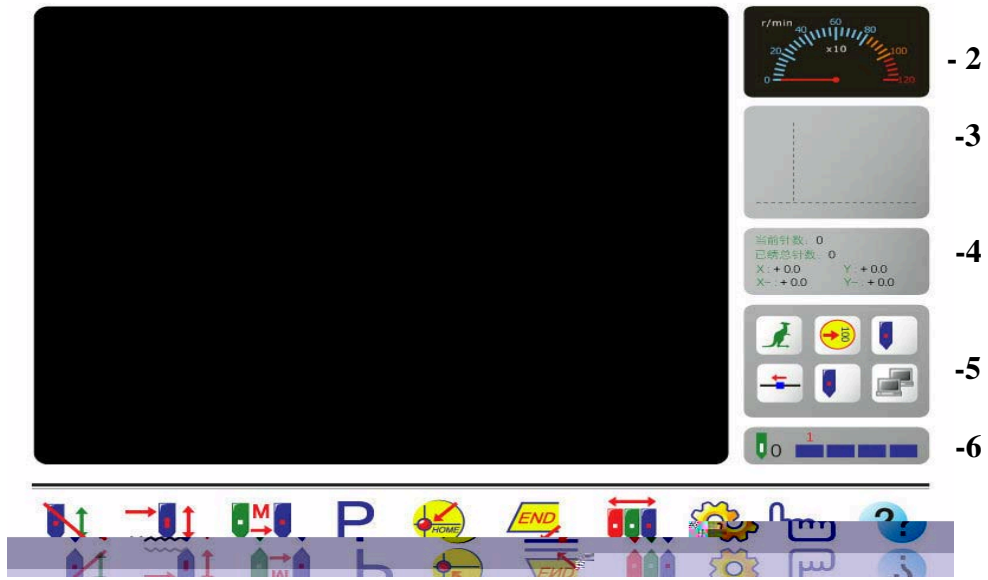
		 

2.3 Function key instruction




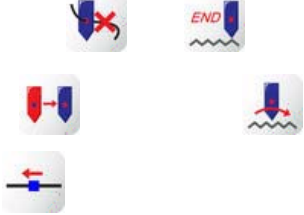











2.4 Main menu instrucion

1



16 15 14 13 12 11 10 9 8 7



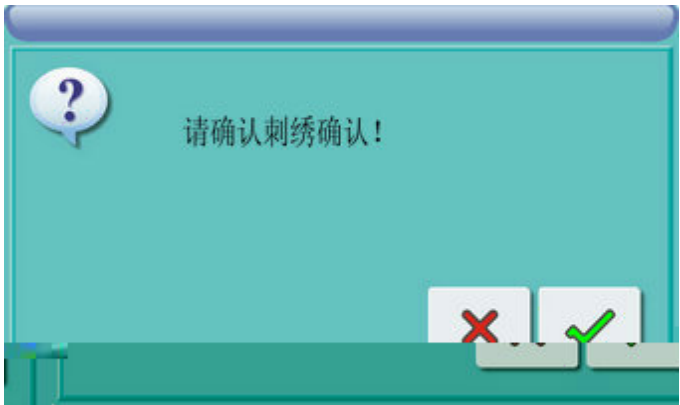
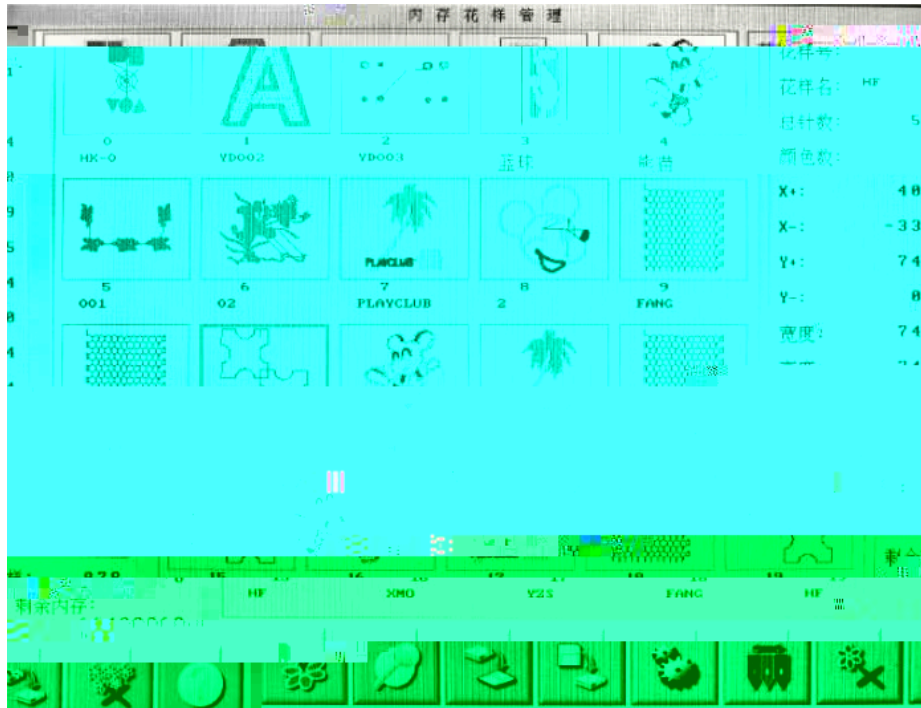
2.7 Basic embroidery flow

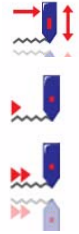
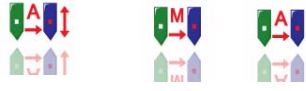
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2.9 Relation of normal embroidery to idling

2.10 Operation bar and slow move operation

2.11 Thread broken detecting and patching switch

Thread picking spring type

thread rolling wheel type

Composite type

2.12 Embroidery machine working status

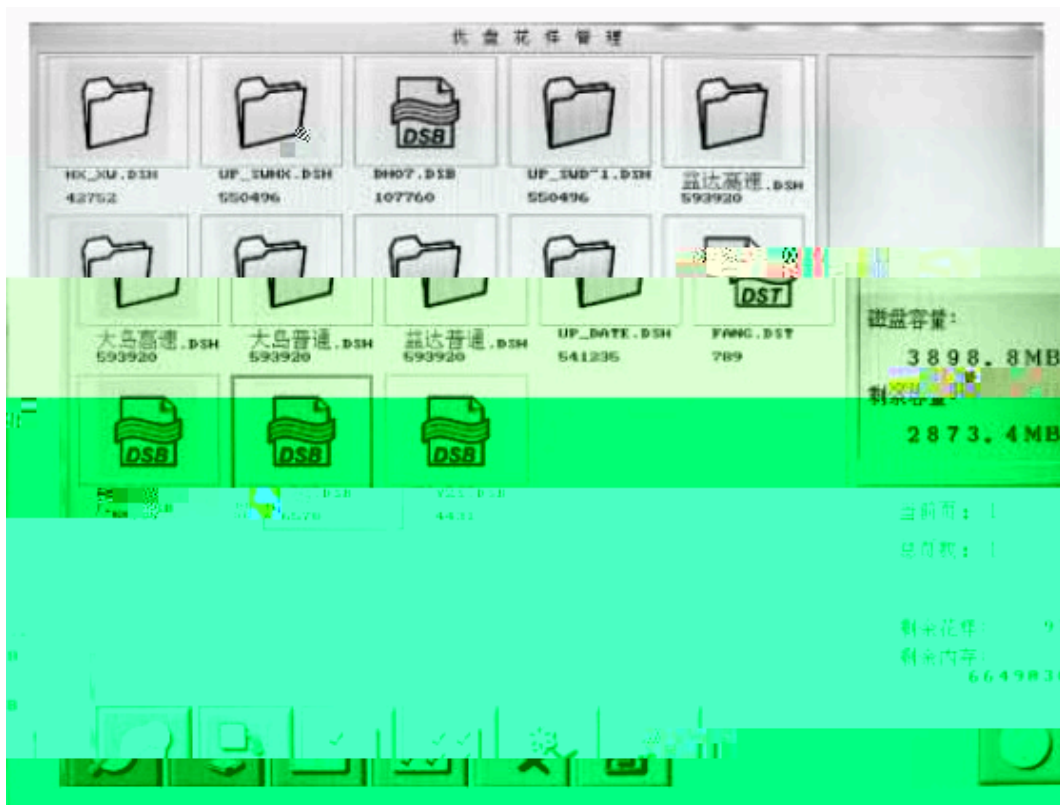


Status switch:

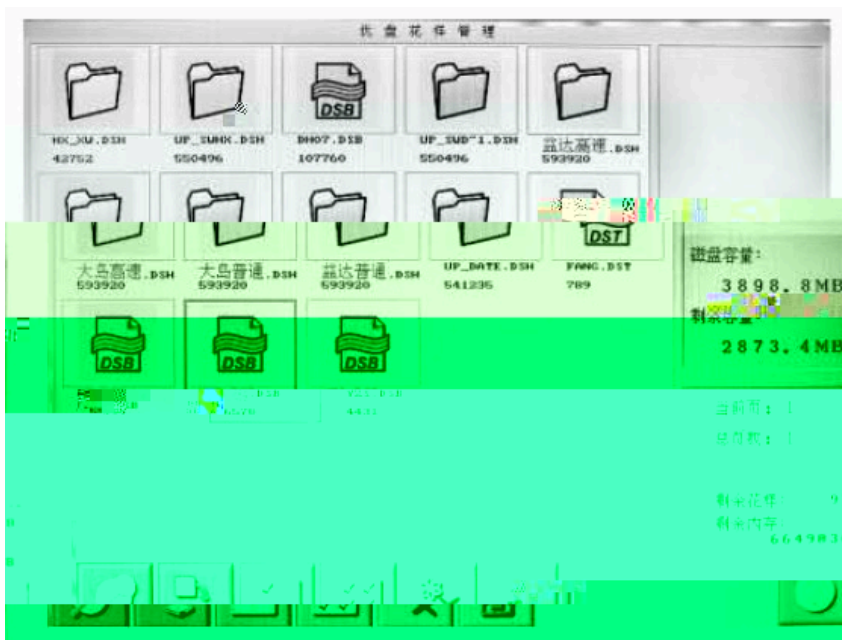
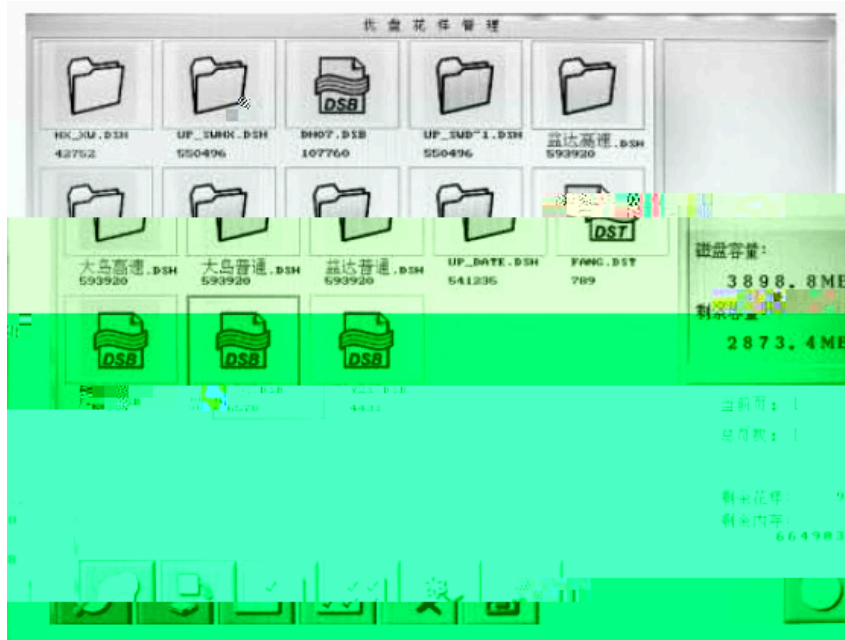


Chapter III USB disk management

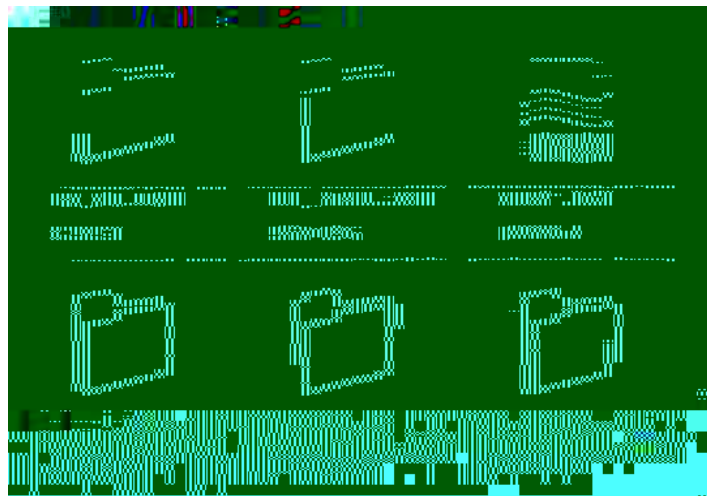
3.1 Select disk

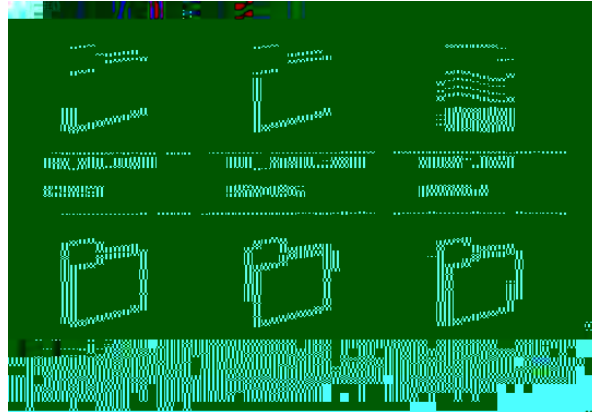


3.2 Design preview



3.3 Select single or multi design





3.4 Input design

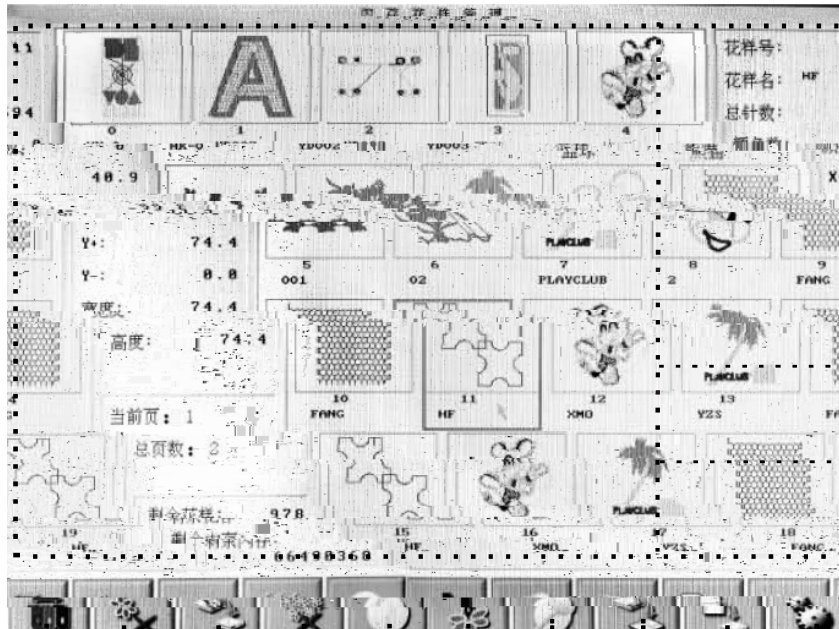












3.5 Delete design



Chapter IV Design management

4.1 Design management menu instruction




No.	Display	Name	Description
1		Design total and memory info	Display design total and memory info.
2		Page info	Display current and total page number.
3		Display design info	Display selected design info.
4		View design	Display design icon for choosing design.
5		Select design	Press this key to modify design parameter, after that, select this design for embroidering.
6		Preview design	View design in large size.
7		Save design to USB disk	Save your design to USB disk.
8		Read design from USB disk	Press this key to enter USB management menu.
9		Set design parameter	Set design parameter when embroidering
10		Set color change order	Set color change order and alternate embroidery.
11		Delete design	Press this key to delete your choice.
12		Pack memory space	Set design compensation.
13		Clean designs	Press this key to clean all designs.
14		Help	Enter help menu.





4.2 Select single or multi design

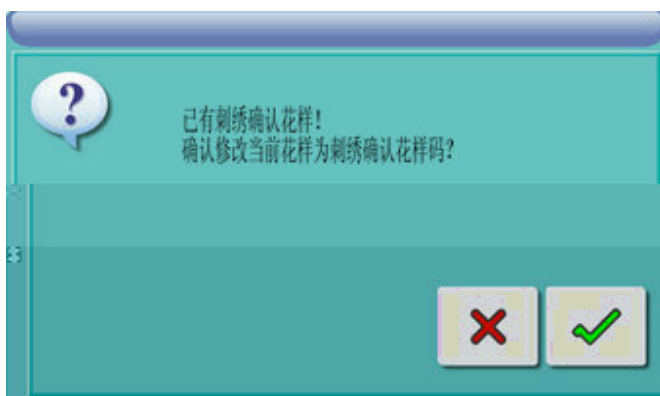
After modifying design, you must make a choice.


Press     keys to select.

Default status is that the first item is selected in the first page and other designs are not selected. Press  keys to make your choice, then the outline of icon and word will turn blue.


4.3 Select embroidery design

1. If you need to select a new design, please make sure that system is in  status.
2. Press  key to enter design management menu.
3. In design icon area, select your design.
4. Press  or  key to enter design clue.
5. Make a choice according to the clue.



If design for quilting embroidery is confirmed, there will be a clue: “Design is selected! Change it into current one for embroidery?”. Press  key to confirm your choice and go back to main menu, then pull bar to embroider.



If there is no design for embroidery is confirmed, screen will be “Please confirm your design!”. Press  key to select current design for quilting embroidery.

4.4 Design preview in memory



Design preview menu

This item is used for viewing design in detail.

Notice: If breviary chart is not displayed, you can renew design it.

4.5 Save design to USB disk



Save design to USB disk

Press this key to save design to USB disk.

4.6 Read design from USB disk



Read design from USB disk

Press this key to read design from USB disk.

4.7 Set embroidery parameter of current design



Set embroidery parameter

Press this key to enter embroidery parameter set menu.


4.8 Set color change order of design



Set color change order

Press this key to set color change order.


4.9 Delete current design

Press  key to delete current design.

4.10 Pack memory space

Press  key to pack system fragment to get more room in memory.


4.11 Clean designs

Press  key to delete all designs in system and set parameter to default.

Chapter V Parameter management

In this system, common parameters such as zooming, repetition and color change order are saved together with each design. When a new design is selected, these parameters saved together will take effect.



This system support multitask operation, so you can set other design's parameters. Please refer to Chapter IV to enter other design edit operation menu.

Press  key to enter this function.



5.1 Step for parameter set

All parameters are almost the same, you can follow instruction in this chapter to set them.

1. Select class

You can move cursor to parameter class or press numeric key, then press  key to enter menu. Then, move to your choice and press  key to enter.

5.2 Set parameter sort

Notice: Part of these parameters can not be input but pressing   key to select.

5.2.1 Zoom, rotate and repeat design

No.	Parameter name	Default	Option	Note
Set design parameters				
	Design direction	P		
	Angle of rotation	0	0~89	Control design rotation
	X-Y zoom rate	100/100	50%~200%	Control zoom rate
	Repetition sequence	X first	X first Y first	
	Repetition mode	usual	Usual, part	No use

5.2.2 Common parameters for quilting machine

No.	Parameter name	Default	Option	Note
Set quilting machine parameters				
	Frame curve	1	1-4	
	Frame angle	245	230~290	
	Max. speed	500 1000	500...,1000	
	Min. speed	400	400,...,600	
	Needles	3	1,2,...,MAXNE EDLE	According to machine head number. If not correct, color change will be abnormal.
	X,Y frequency doubling no.	5	1-20	According to servo motor.
	T.B.BACK STL.	1	0 ~7	
	Upper thread detecting	ok	NO, ok	
	Bottom thread detecting	NO	NO, ok	
	Bottom thread detecting paras.	6	1 15	
	Upper thread detecting without dithering no.	3	1 6	
	Stop compensation	10	1 30	
	Startup ACCE	8	1 30	Adjust start acceleration
	Jump limit	NO	400 800	Jump speed limit
	Head no.	32	1 172	According to machine
	T.B. mode	Double	Double, normal	Double: one solenoid and two stitch.
	Step frame	NO	NO, ok	Ok: move after jumping
	Switch speed length	4.0mm	3.0mm--7.0mm	Adjust stitch speed
	Auto stop quilting number	0		0: not stop, according to set value to stop
	Auto stop bottom thread number	0		0: not stop, according to set value to stop
	X compensation	0	0 5	
	Y compensation	0	0 5	

5.2.3 Assistant embroidery parameters

No.	Parameter name	Default	Option	Note
Assistant embroidery parameters				
	Auto orig	ok	NO, ok	
	Repetition EMB.	NO	NO, ok	After embroidery, whether it will work automatically. Work with repetition and special design making.
	Display stitch no.	ok	NO, ok	
	Filter empty stitch	NO	NO, ok	Ok: System will filter empty stitch to avoid fall stitch in former place. NO.: Do not filter.
	Auto start when same color	ok	NO, ok	In color change order, when former position is the same as next position, whether or not deal it as color change.
	Manual color change remember	NO	NO, ok	Ok: Color change is saved. After work, it will be NO.
	Stitches for patch	0	0~500	
	Low speed for patch EMB	MAX.	80~ MAX.	
	Design stop code conversion	NO	NO, ok	Change stop code to color change code for some country.
	Display bottom color	ok	NO, ok	
	3D display	NO	NO, ok	
	Filter empty stitch when EMB.	NO	NO, ok	

5.2.4 Thread broken detecting parameters

No.	Parameter name	Default	Option	Note
Thread broken detecting parameters				
	T.B. detect	ok	NO, ok	
	STI. not T.B. detect	8	0 ~15	
	T.B. detect stop	ok	NO, ok	
	Pull bar after T.B.	NO	NO, ok	
	T.B.BACK STI.	1	0 ~7	Some type do not work(Sequin EMB.)
	Darning NO.	0	1 ~10	Stitch no. after thread broken point when darning is over.
	Mode after darning	Stop	Still, Decelerate, Stop	
	All head darning	NO	NO, ok	Ok: when darning, unlocked heads works.
	T.B. detect when jump	NO	NO, ok	
	T.B. detect mode	Spring	Spring, rolling wheel	
	T.B. detect without dithering no.	3	1 ~6	
	Upper thread detecting paras.	6	1 15	
	Bottom thread detecting paras.	6	1 15	
	Upper thread detecting without dithering no.	6	1 6	
	Bottom thread detecting without dithering no.	6	1 6	

5.2.5 Parameters of taboret

No.	Parameter name	Default	Option	Note
Frame parameters				
	Frame curve	1		
	Frame angle	245	230~290	
	Step move frame	NO	NO, ok	
	High speed of frame move	10	1~30	Change manual frame move speed.
	Low speed of frame move	15	1~30	Change low speed manual frame move speed.
	Frame move speed	6	0,1,2,...,30	Change frame flat move speed.
	Gas frame	ok	NO, ok	
	Gas frme time	3	0~15	
	X-Frame angle A	245	230 280	
	X-Frame angle B	250	230 280	
	EMB. mode	Normal EMB.	Normal EMB. / Cap EMB.	
	Frame weight			
	Debugging 1			
	Debugging 2			

5.2.6 Main shaft control parameters

No.	Parameter name	Default	Option	Note
Main shaft parameters				
	MAX. speed	700 1000	250 300 350 ...,1000	
	MIN. speed	400	250,300,350,...,600	
	Switch length (mm)		1.0~10.0 (normal)	When stitch length is larger than this value, machine will reduce speed.
	Speed choice	0	0--4	Change stitch code speed
	Jump stitch speed	500	400 750 (normal)	Set rotate speed when there is a jump stitch.
	Set run speed	80	80,90,...,150	
	Slow stitch no. when start	1	1 ~9	After finish slow stitch no., machine will accelerate.
	Startup ACCE	10	1,2,3,...,30	The bigger the value is, the faster the acceleration is for pulling bar operation.
	Stop compensation	10	0~30	Range:0—30 Slip motor:8; Servo motor:5--7
	Main shaft motor para.	8	0~30	Slip motor: Enlarge this data can prevent dithering when braking. Default:8
	Speed of slow EMB.	400	80 rpm, MIN speed get MIN value	
	Stop ok bef. pull BAR	ok	NO, ok	

	Adjust freq. conversion drive rate	15	-15% ~ +15%	For converter motor. This value will not make set speed be different from real speed.
	Thick cloth compensation	0	0~3	
	Stitch stop adjustment	0	0~30	
	Lock main shaft when stop	ok	NO, ok	
	Main shaft type	General	General, Dahao, Freq. conversion, slip	According to main shaft type.

5.2.7 Parameters of trimming

No.	Parameter name	Default	Option	Note
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	Lock Num-After trim	2	0~3	This parameter is used for setting the locked stitch number when pulling bar to work after trimming.
	Main shaft rotate no. after trim stop	1	1,2	Normal machine:2. Small machine:1.
	X Frame move angle	250	230 280	
	Action after trim	Y move	X move, Y move, Needle.	
	Move frame after trim	NO	NO, ok	
	Buckling angel compensation	0	0~3	
	Test trim position	NO	NO, ok	
	Clasping angle	0	-100~+100	Enlarge this value and the angle will move backward
	Clasping motor drive ratio	1:12	1:9,1:10,1:12,1:15,1:18,	
	Turn off trimming	NO	NO, ok	
	Trimming or not	NO	NO, ok	
	Lock Stitch length before trimming	1.0	0.3~2.0	
	Lock Stitch no. before trimming	0	0~2	
	Start angle of trimming	3	0 20	For stepping motor
	Back knife angle when trimming	4	0 30	For stepping motor
	Keeper angle	5	0 99	For stepping motor
	Buckling solenoid voltage	1	1 3	For stepping motor

5.2.8 Sequin embroidery parameters

No.	Parameter name	Default	Option	Note
Sequin parameter				
	Sequin R-needle	0		Set sequin stitch position
	Sequin L-needle	0		
	R-sequin size	1		
	L-sequin size	1		
	Sequin board type	Single	Single, Double, undefined	According to sequin board.
	Sequin R-speed	400		
	Sequin L-speed	400		
	R-sequin deliver angle	18		
	L-sequin deliver angle	18		
	Gas valve for sequin	250	230 280	
	Sequin device falling time	3		
	Lift sequin after T.B.	NO	NO, ok	
	Sequin device move separately	NO	NO, ok	
	Lift gas valve when jumping without trim	NO	NO, ok	


5.2.9 Special embroidery parameters

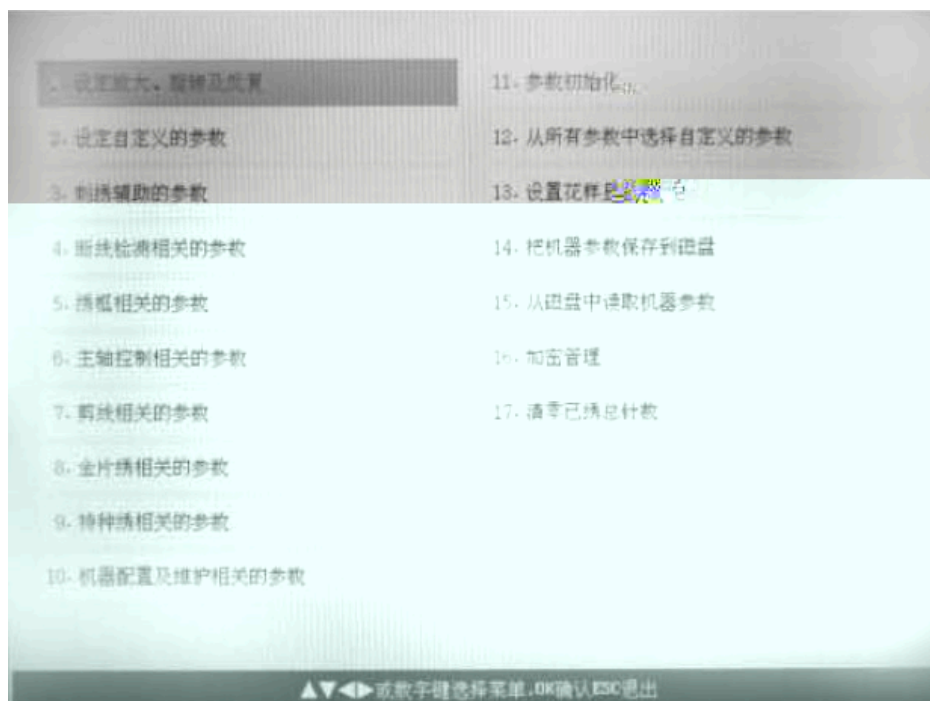
5.2.10 Machine config and maintenance parameters

No.	Parameter name	Default	Option	Note
Config and maintenance parameters				
	Needles	3	1,2,...,MAXNEED LE	Refers to the number of the needles installed at the head. If it is not set correctly, color change will be abnormal.
	X,Y freq. doubling	5	1-20	According to machine and servo driver
	Boring needle	None	None, 1~ N	N: machine needles no.
	Boring shifting	0	0mm,12mm	
	Cord EMB. Needle	None	None 1 N	N: machine needles no.
	Speed for cord EMB	400	300,310,320,...,60 0	
	Solenoid voltage	4	0,1,2,...,30	
	Solenoid current time	5		
	Stepping color change speed	3	0 30	Color change motor type is stepping motor. Larger this value is, faster the machine moves.
	Backlight time			
	Forbid design output	NO	NO, ok	
	T.B. detect board mode	Double	Double, normal	Double: One solenoid has two stitches.
	Upper thread keep voltage	6	1~10	

Chapter

Chapter VI Assistant function


Press  key in main menu to enter assistant embroidery interface.



6.1. Set parameters

Please refer to Chapter V.

6.2. Orienting operation

Oriented idling operation is available in  status. According to you request, oriented idling function can move taboret to appointed position without embroidery. You can specify stitch number, color change code and stop code for idling forward and backward. Oriented idling list is on this interface, move cursor to your choice to apply this function.

6.2.1. Oriented idling of forward stitch number

1. Move cursor to forward stitch number and press key.


2. Input stitch number and press key to confirm and key to cancel.

3. System goes back to main menu, then pull bar rightward to idling for appointed stitch number.


6.2.2. Oriented idling of backward stitch number


Operation step is same as forward one, but you should pull bar leftward. Please refer to Chapter 6.2.1.

6.2.3. Oriented idling of next color change code

1. In oriented idling menu, move cursor to “next color change code” and press  key.



2. Press  key to return to main menu and pull bar rightward to idle to next color change code.




Press  key to cancel this operation.

Other three functions are the same.

6.3. Display or set clock

Set system time.

6.4. Display language

Move cursor to this item, press  key to enter and   key to select language.

6.5. Relevant test for machine

This operation is for maintenance personal use only, operator do not enter this item. This operation will make machine work, so be careful when testing.

Debugging function is used for machine test, maintenance and checking malfunctions. It contains as follow:

Photoelectricity encoder test

Main shaft self test

Main shaft rotate from 100° to a certain angle

Test switch bar

Test limit switch

Test head solenoid

Test trimming solenoid/motor test

Buckling solenoid test clasping

Solenoid/motor open scissor

Trimming motor reaches a certain angle

Find original point to test thread broken detecting

Thread broken data for each head

Running number of rolling wheel type thread detector for each head

Raise/fall sequin device

Z embroidery jogging

Raise/fall presser foot for tray embroidery

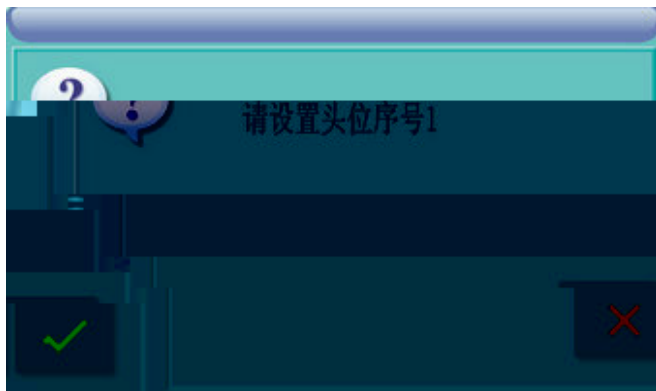
Test upper thread catch

6.6 Password management

Set system password.

6.7 Set thread broken detecting board number

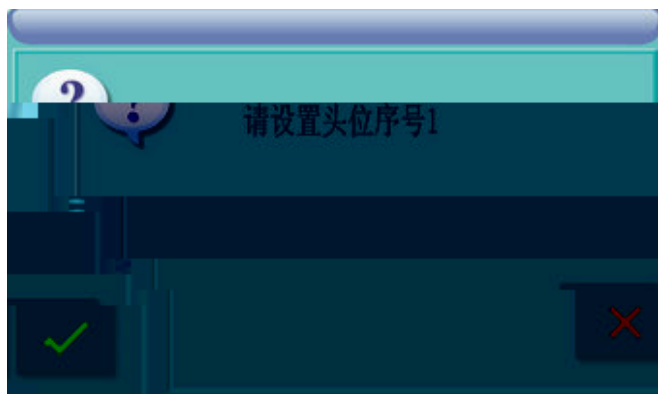
1. Number thread broken detecting board according to priority.



System ask you to set head serial number “1”, then dial three position switch on this head to down position. After that, dial the switch to middle position. If success, system will increase head serial number to “2”. Other heads are the same.

2. Number appointed thread broken detecting board

System asks you to input your serial number of head, then will be shown as follow.



System ask you to set head serial number “1”, then dial three position switch on this head to down position. After that, dial the switch to middle position.

6.8. Software information

View information of machine software version.

6.9 Help

Help information.

6.10 Set design color

When design being embroidered, system will display color, cloth color and main background color.

6.11 Reset embroidered stitch number

Clear total number of embroidered stitch in main menu.

6.12 Reset embroidered length

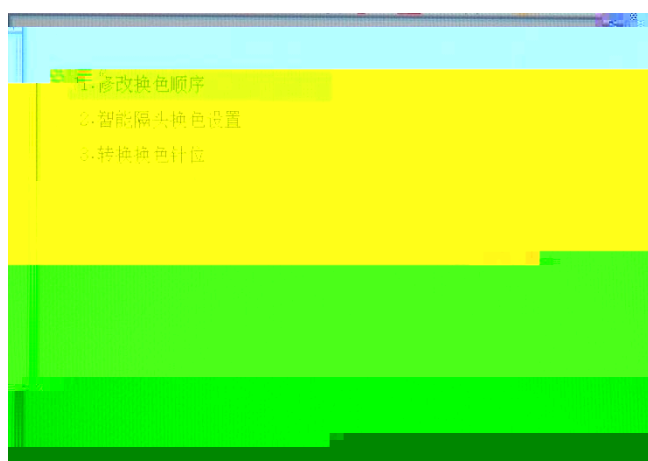
Clear total number of embroidered length in main menu.

Chapter VII Color change order & alternate embroidery set

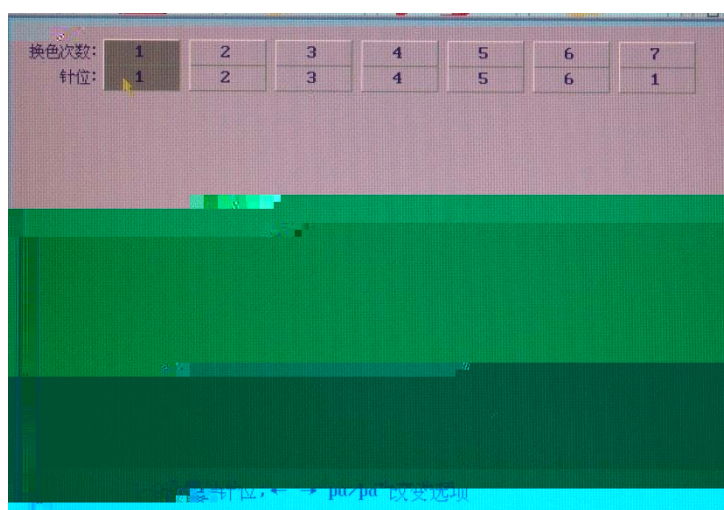
7.1 Modify color change order

Color change order is saved together with design.

Press  key to enter design color change menu to set parameter.





1. Move cursor to “Modify color change order” and  key to enter data input menu.




2. Press numeric key (Notice: numbers can not exceed machine stitch number) to input color change portion, then screen will show stitch number and its order.



If inputting special or sequin embroidery position, system will enter special or sequin embroidery mode menu. More details are in their operation modes.


Press  key to save color change order and repeat them. Press  key to cancel your option without saving order.

7.2 Set intelligent alternate color change

1. In design color change order menu, move cursor to “Intelligent alternate color change set” press  key to enter this menu.



Press “ 

” keys to select your choice and numeric key to input color change position. If input numbers exceeds machine stitch numbers, press  key to input a position number.

If parameter “Head no. of one set” is not “1”, system will work according to this data.

Head no.: During embroidery, system will see this head number as one head for use, and lock other head that is outside of embroidery area.

MAX effective stitch number = “Head no.” * “Machine stitch no.” Namely, if “Head no.” is 3 and stitch no. is 6 MAX effective stitch number will be 18. Now, machine stitch number is set to 18.

When inputting color change stitch position, effective stitch number should be less than MAX effective stitch number.

Set color change stitch number:

A set of head position = (Effective stitch number / Machine stitch no. +1).

Working stitch no. = Arithmetical compliment of Effective stitch number % Machine stitch number.

If arithmetical compliment is “0” stitch position will be machine stitch number.

Namely, If stitch position is 13 and machine stitch number is “6” color change head number is in Position 3 in this set and stitch number will be 1.

When working to this position, system will change color it Position 1 and lock the 1st and 2nd head of this set and unlock 3rd head to embroider. System will move current embroidery point to 3rd head to go on working.

Add 12 colors to machine.

Explain: You can set head number according to taboret move range and design attribute.

7.2.1 Set head position

In design color change set menu, press “F10” to enter head position set menu.



Green (1) : Current head position unlocked.

Red (1): Current head position locked.

Press “” key to select head position.

Press “F5” to unlock head and this head will fall stitch when embroidering.

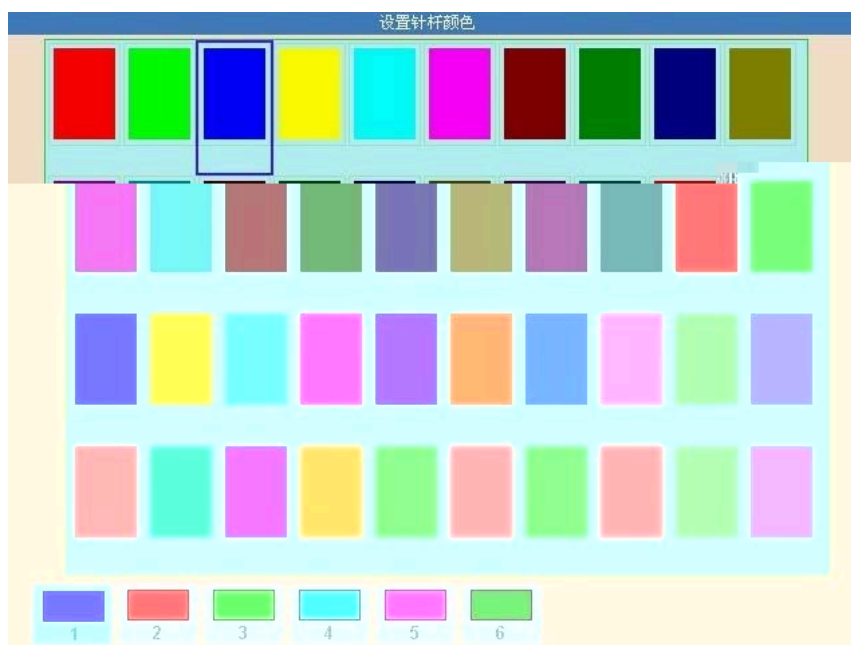
Press “F6” to lock head and this head will not fall stitch when embroidering.

Press “F7” to copy this order according to cursor pointed head position data.







7.2.2 Set design color


In order to make screen color be close to read design’s color, system can set stitch color. This set of color will be saved with color change order.


1. In color change order menu, press “F3” to enter stitch color menu.





2. There are 320 kinds of color for stitch color set.

Press key  to find your stitch, then select color in 40 choices by pressing    keys and  key and  key to confirm. After that, stitch will update color set.

3. After set operation, press  key to save data and go back to design color change set menu.

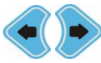
Then press  key to exit without save.

7.2.3 Set patching status

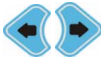
Press   keys to find your choice and “F4” key to set or cancel current patching status of color change. If parameter is set, this operation will cancel it.

Patching status = “T” stands for this color change has patching operation.


7.2.4 Set patching distance

Press  keys to find your choice and “F6” key to set current patching distance. Once patching distance is set, system will set patching operation in this color change.


7.2.5 Set function code

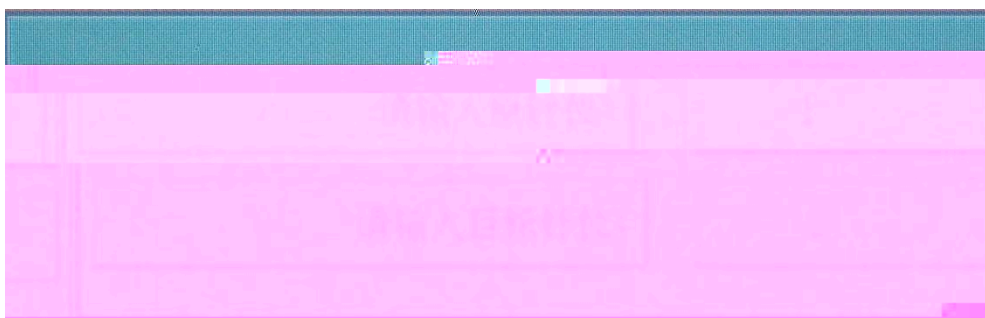
Press  keys to find your choice and “F8” key to set function code of current color change. Press “F6” to copy cursor pointed data.



7.2.6 Set taboret move mode

Press  keys to select position of color change times, then press F9, to set taboret move mode of current color change. Press F7 to copy move mode that is in front of cursor to the mode behind cursor.

7.3 Switch color change order

1. In color change order menu , move curse to “Switch color change position” and press  key to enter switch color change order menu.



Press numeric key to input “Stitch position need to be replace” press  to confirm and enter “ New position”, press numeric key and  to save.