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Chapter 1 The System Introduction

1.1 Summary

Thank you for using our Computer Embroidery Control System!

Our Computer Embroidery Control System can be used various embroidery devices, and meet your different sewing requirements.

The advanced DSP control technology, the faster system, and the friendly robot operation interface, which effectively improve the productivity; the speed of the control system is adjusted by smooth curve, run more smoothly, reduce noise, and extend device's work life.

Touch screen operation, easy and simple.

Support remote upgrade: can download the latest software to upgrade by U disk

Before using, please pay attention to reading our instruction to ensure your operation correctly.

And please save the manual well!

1.2 Precaution

Prohibited: non-professionals to maintenance and debug the electrical system, if not, this will reduce device's safety performance, and expand failure, even cause accident and property loss.

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.

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 us; we 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 10 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 Work Environment

Ventilating and sanitary environment with little dust;

Working Temperature: 5-40° ;

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

1.4 Power Supply and Grounding

This electric control system can use the following power supplies:

Single Phase: AC110V/60HZ

Single Phase:AC220V/50HZ

The voltage is over 10%, must have the regulator device.

According to different machine configuration, the power consumption is between 0.5-2.0KW.

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

The grounding resistance is less than 100ohms, the wire length is less than 20m, the wire

cross-sectional area is greater than 1.0 mm².

1.5 Panel and Keys Function Introduction

1.5.1 Operation Panel



1.5.2 Keys Function



Selection Key, can be used to move frame and adjust the main axis speed.



Arrow Key, can be used to move frame in the preparation status and embroidery status.

Green key: Start key

Red key: Stop key

1.5.3 Touch Keys Icon Description



Rise/descend Main Axis Speed Key .



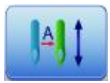
Main Menu Key.



Set Design's Origin Key.



Set Design's Offset Key.



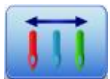
Work Mode Switch Key (automatically change color & automatically start embroidery mode).



Work Mode Switch Key (automatically change color & manually start embroidery mode).



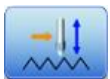
Work Mode Switch Key (manually change color & manually start embroidery mode).



Manually Change Color Key.



Set Change Color Key.



Embroidery Mode Switch Key. (normal embroidery status)



Low Speed Idling Embroidery.



High Speed Idling Embroidery.



Remove Embroidery Key.



Enter Embroidery Key.



Idling Operation Key.



Manually Trimming Key.



Manually Trimming Key.



Manually Trimming Baseline Key.



Return Stop Point Key.



Return Origin Point Key.



Return Offset Point Key.



Jog Operation



Jog to 100 Degrees Key.(Zero Position)



Jog to 172 Degrees Key.



Jog to Any Angle Key.



Power off and Restart Embroidery Key.



Full-screen Show Design and Show in Proportion Switch Key.

AX/AY: Show Origin Coordinate of Relative Design

PX/PY: Show Origin Coordinate of Relative Frame

1.5.4 Functions

Friend Man-machine interface, easy to learn and operate, strong function, convenient to use, can improve operation performance and efficiency.

Support multi-languages, can switch the languages according to your demands.

Larger memory capacity, can store 20,000,000 stitches and 200 designs.

Variety of designs input channel, U disk, USB(match PC software), and internet(need match PC software), convenient to choose and use.

Support different file format, and can distinguish Tajima's DST and Barudan's DSB etc.

Powerful parameter adjustment function, can adjust the parameters depend on your request.

Power off and restart embroidery function, suddenly power off, can automatically restore

and then continuously embroidery, don't worry the dislocation.

Device can check by itself, can check, adjust and repair machine's status, parameter.

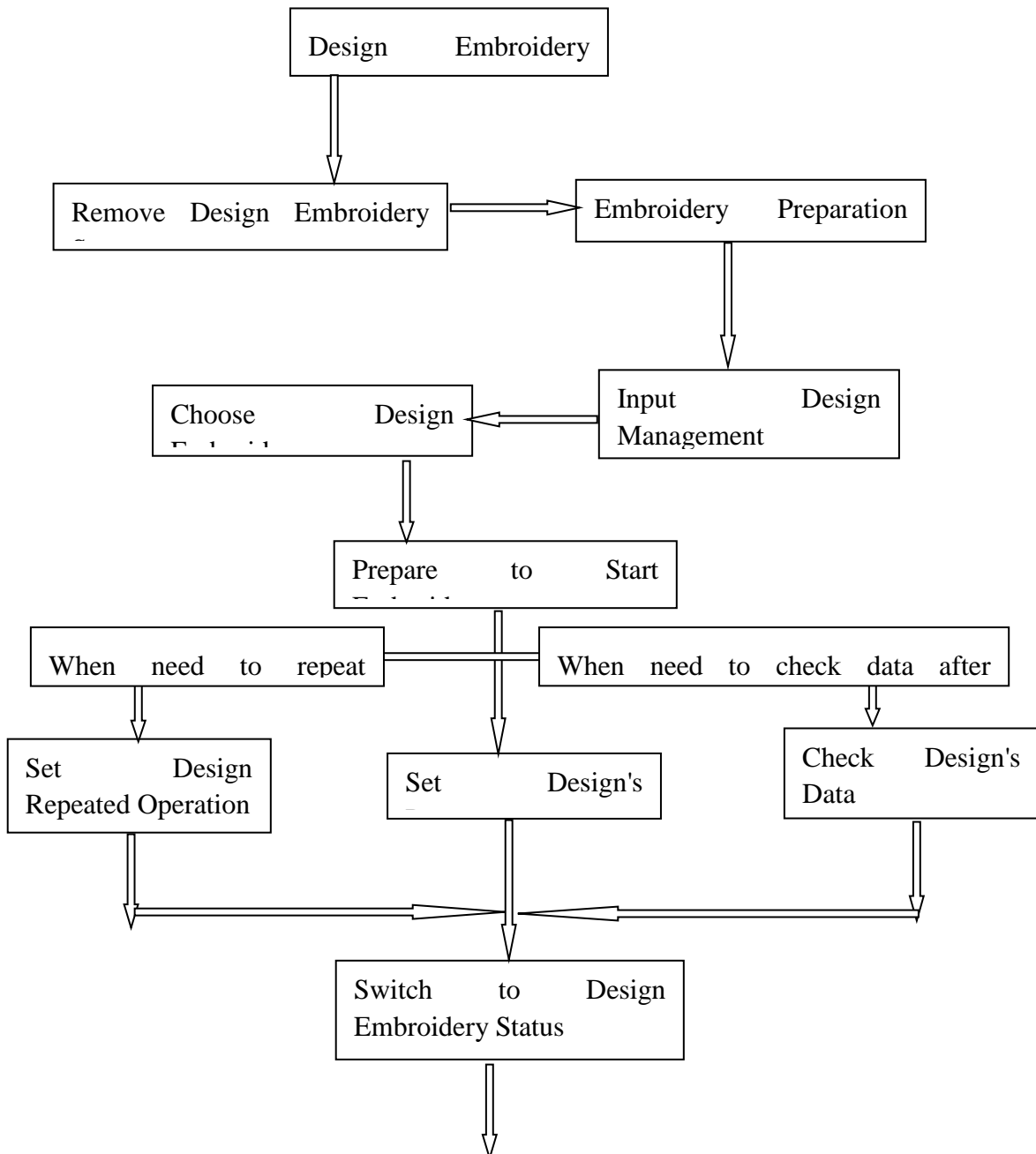
Main axis stop position adjustment function, users can adjust system parameter to reach correct stop position according to embroidery machine.

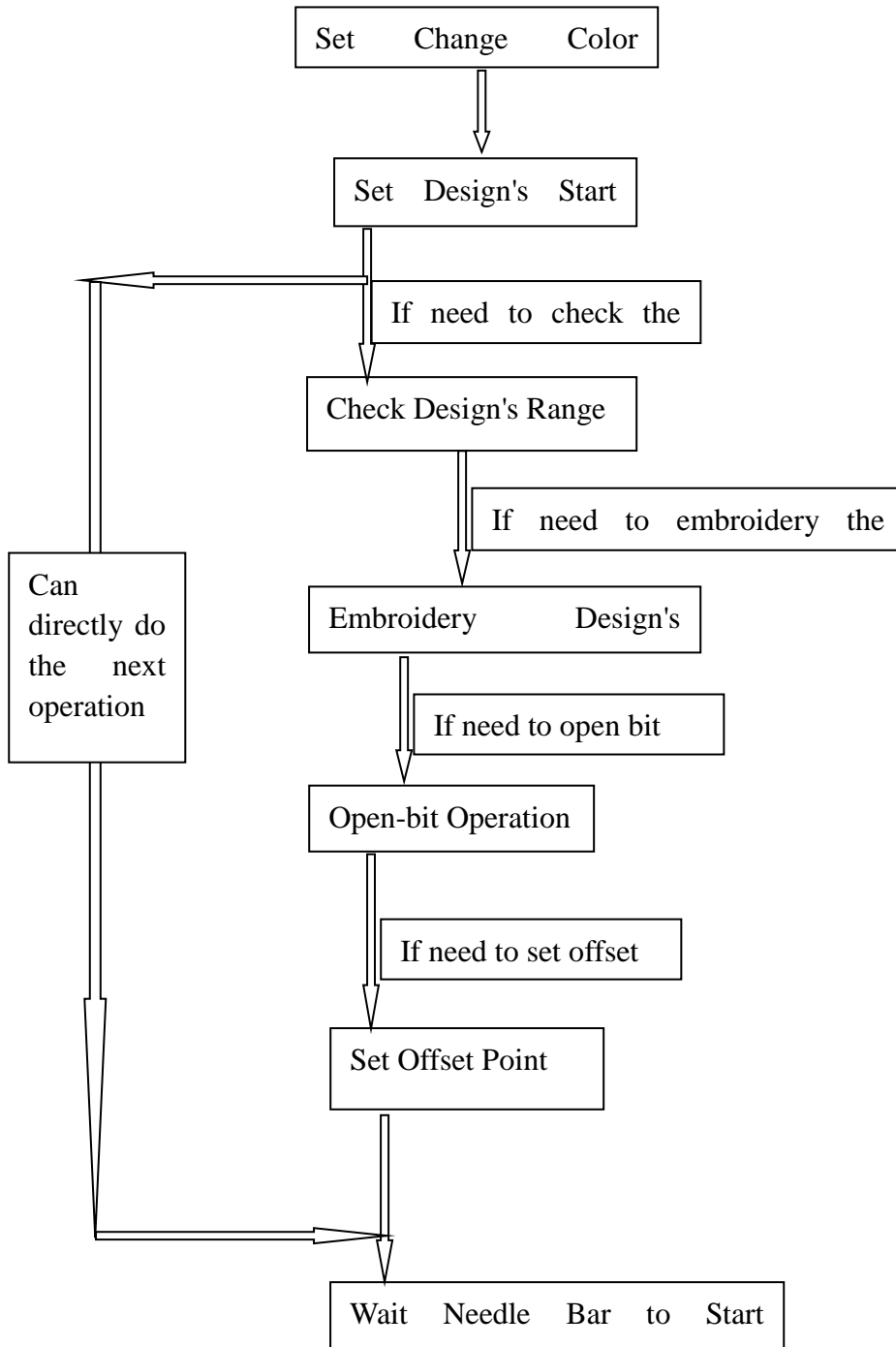
Automatic memory function of embroidery design's parameter, which can automatically save the embroidery design's data, like change color, origin point, offset, embroidery parameter etc. Convenient to embroidery the design again.

Affixed color embroidered offset function, which can set any change color bar to affixed color embroidered, convenient the operation.

Accurate embroidery function of design's round, to meet your needs that design position.

Chapter 2 Embroidery Operation Process






Chapter 3 Designs Input

Design input operation is that designs in the U disk input to the memory, which can be operated in the status of embroidery preparation and embroidery working.

Design input is that designs or files in the external storage medium input to the system memory, convenient to select embroidery. If there is no designs in the system, it'll enter this interface.

The system support Tajima DST, Barudan DSB formats.

Before reading design, firstly U disk access to USB port, then do the panel operation.


Click  into the main menu, show as:




3.1 Designs in the U disk Input to Memory

In the main menu, click  to do U disk operation, show as:




Click the requested design, press , automatically show the download progress and memory No., after finishing, will automatically return U disk operation interface, continue to do the next.

Click , can directly return working status.


Click  to return the last interface.

3.2 Delete the Designs in the U disk

In the U disk interface, press the deleted design, then click  to delete.


Chapter 4 Designs Management


Designs management, which contain choose designs, input designs, combine designs, divided designs, delete designs, and delete all designs(can not do the operation in the working status).

In the main menu, click  into "Designs Management" interface, show as:



4.1 Choose Designs


In the "Designs Management" interface, click  to enter choosing design operation. Press the requested designs, it'll display the selected design's information in the LCD below.


The selected design's No.& name and background will change blue. Click  to enter embroidery preparation interface.

Press the selected design 3m, can show full-screen, press touch screen again to return "Choose Designs" interface.


In the embroidery preparation status, can set parameter that embroidery needed, like rotation direction, zoom, rotation angle, repeat, satin stitch compensation etc.

4.2 Cut Designs


In the "Designs Management" interface, click  to enter "Cut Designs" operation. Click the requested design to cut, it'll display the selected design's information in the LCD

below. The selected design's No.& name and background will change blue. click , it'll show a dialogue, show as:



Input the needed stitches, click , the interface will switch to confirm segmentation, After finishing, it'll automatically return "Cut Designs" interface.

4.3 Combine Designs

In the "Designs Management" interface, click  to enter "Combine Designs" operation.

Click the requested designs, the same design can be selected more times, at most 4 designs can be combined a file, the name of selected designs will display in the below, show as:



click  to enter "Combine Designs" interface, show as:






Set needed data, and select mode, click  to combine designs. The system will automatically store a Number and Name.

4.4 Delete Single Design


In the "Designs Management" interface, click  to delete a single design, and

click  to confirm.

4.5 Delete All Designs

In the "Designs Management" interface, click  to delete all designs, and click 
to confirm, click  to quit delete operation.

4.5 Output Designs to U disk

In the Design Management Interface, click  to do the "Output Design"
operation, select the required designs, press  to confirm.



Chapter 5 Embroidery Designs

5.1 Switch Embroidery Status

The embroidery status has 3: preparation status, working status, and running status, which can be switched by the keys. start needle bar to enter running status, show as:

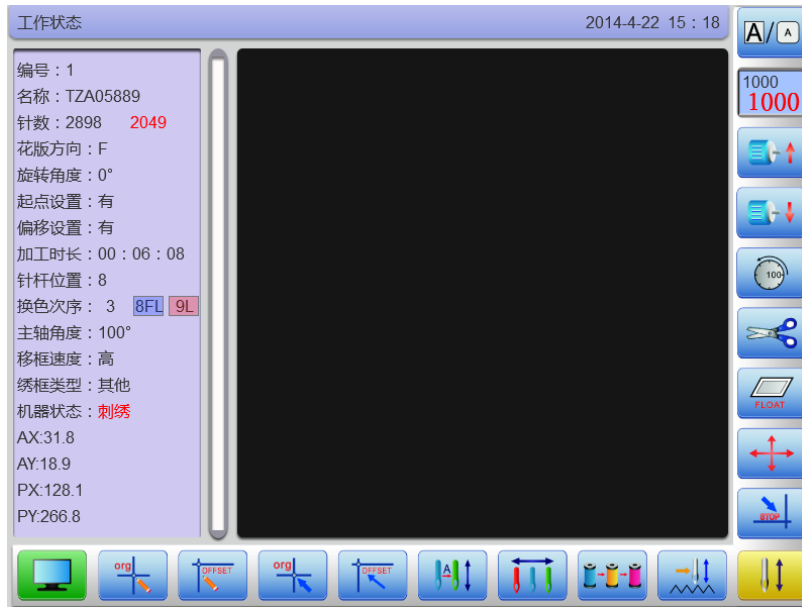
Preparation Status





Click , show a dialogue "If enter the working status or not?", click  to confirm, show the picture as "Working Status".

If there is no designs existing, it'll prompt "No Choose Designs", and can't enter working status.

Working Status




Click  , show a dialogue "If remove the working status or not?", click  to confirm.




5.2 Preparation Status

In the preparation status, can operate main axis jog, trimming, switch frame, manually change color, set design parameter and select parameter etc.

5.2.1 Set Design Parameter

In the preparation status, click  , show as:



Modify the data according to your requirements, then click  to save the modification, again press  or  to return the preparation interface.

Parameter Range Detail:

Rotation direction: 8 directions, the default is 0°、90°、180°、270°、0° mirror、90° mirror、180° mirror、270° mirror.

Rotation angle: 0-89° (calculated after the rotation direction)

XY magnification: 50%-200%.

Repeated mode: ordinary、X symmetry, Y symmetry, XY symmetry.

Preferred mode: X preferred, Y preferred.


XY repeated number: 1-99 (ordinary X/Y99, X symmetry X2/Y99, Y symmetry X99/Y2, XY symmetry X2/Y2).

XY Space: 0-±999.9mm

The unit of the system is MM, writing digital by 0.1mm, when need to write 100mm, you can write 1000.

XY compensation (satin stitch): 0-±0.3.

5.2.2 Switch Frame

In the preparation status, click , show as:



Choose the current selected frame type, when choose cap frame and A-E frame, it'll automatically find the absolute origin, and stop the center of the frame, please note frame move. The center and the range of cap frame and A-E frame refer to the frame setting. "Other" frame don't find absolute origin, the embroidery range will be defined by software limit (the details refer to software limit setting).

After choosing frame, it'll return the preparation status interface, if don't select, the system will follow the last used frame type.

When choose cap frame, the current selected design will rotate 180° , and the others don't change.

5.3 Work Status

In the working status, we can do the operations: Origin (Start Point)Set, Offset (another start point) Set, Return Origin, Return Offset, Return Stop Point, Change Color, Jog Main Axis, Manually Trimming, Change Work Mode, Switch Embroidery Mode, Position Idling Embroidery, Embroidery Design Contour, Embroidery Straight Angle, Embroidery + Shape, Embroidery Straight Line, Shift Frame to Generate Design, Check Embroidery Range, Power off and Return the Working Point to Embroidery, Check the Proportion between Design and Frame etc.


5.3.1 Origin (Start Point)Set

In the working status, move frame to the needed design's origin (start embroidery point), click



to set origin. AX/AY coordinate cleared.


If the design has been set the origin, the system will prompt "Origin has been set, whether to

reset? ", click  to reset the current position as the origin, the original set offset also

will be cleared. Click  don't set, still use the last origin.

5.3.2 Offset (Another Start Point) Set

The purpose of setting offset is easily retractable embroidery materials and placing the path, and **must set origin (start point) before setting offset.**



Click , it'll prompt "move frame to offset, press confirm", manually move frame to

requested position, click  to complete.

After setting, frame will automatically return the origin to start embroidery. After embroidery, frame will automatically move to the offset, and stop.



5.3.3 Return Origin

When need to return the origin in the embroidery status, we can do the operation.


Click , it'll prompt "whether to stop embroidery, return origin?", click , frame will move to origin and stop, AX/AY coordinate will be cleared.

5.3.4 Return Offset

When need to return the offset in the embroidery status, we can do the operation.


Click , it'll prompt "whether to stop embroidery, return offset?", click , frame will move to offset, and stop.

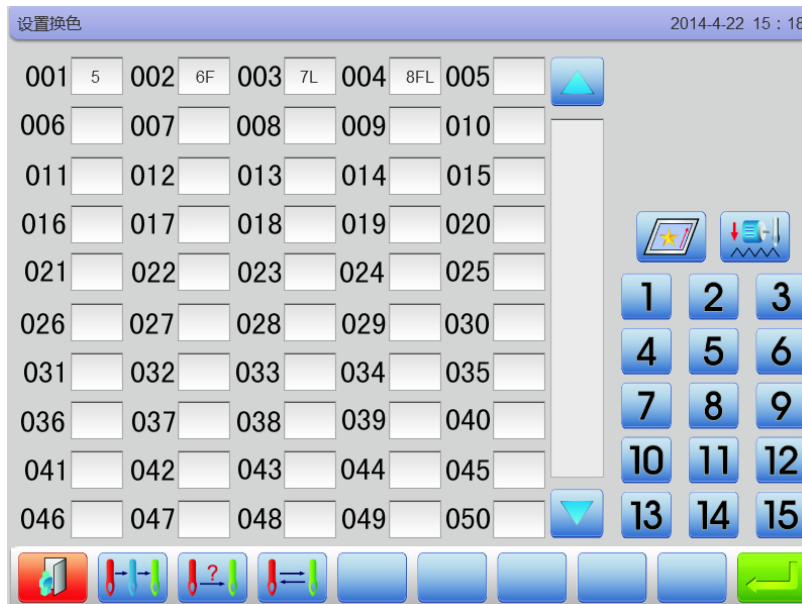
5.3.5 Return Stop Point

Stop in the embroidery halfway, manually move frame, need to return the stop position, we can do the operation. Click , frame will automatically move to the position that manually frame stop.

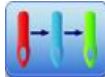
5.3.6 Change Color

Change color contains change color sequences, modify needle bar, replace needle bar.


In the working interface, click  to enter "Change Color", the default will be "change color sequences" operation, show as:




5.3.6.1 Color Sequence (Affixed Color Embroidered)


In the "Change Color" interface, click  to enter "change color sequence", 001~200 means the number of setting change color, the max is 200, which starts from the bottom needle bar.

When the needle bar is error in the halfway, click and select, then renew set.


If a color sequence that the cursor clicked complete embroidery, and need offset frame (Affixed Color Embroidered), before writing needle bar number, press  a time, the

current needle's background will be **RED**. If need to cancel the offset frame, press  again.

If a certain color changing sequence that the cursor is located requires deceleration for embroidery at the embroidery (slowed speed is set at “low embroidering speed” in “speed

parameters” of embroidery parameters), press  key once before No Input needle bar and “F” is displayed behind current needle bar number. If to cancel low embroidering speed



setting, press  once again.

After setting, click  to save, **in the function, the system will protect the data that the cursor position.**


In the embroidery design interface, the needle background will be RED when it has offset frame in the color sequence, if don't offset frame, the background will be YELLOW.


5.3.6.2 Modify the Needle Bar

When need to modify a needle bar in the halfway of change color or embroidery, we can do the operation.

In the "Change Color" interface, click  to enter "Modify Needle Bar", selected the requested position to change, then press  to confirm.

If a color sequence complete embroidery, and need offset frame (Affixed Color Embroidered),

Selected the needle bar, press  a time, the current needle's background will be **RED**.

If need to cancel the offset frame, press  again.


5.3.6.3 Replace the Needle Bar

Mainly used to a one time modify a needle bar in all change color sequence.





If all color changing sequences of a certain set needle bar shall be replaced by another

needle bar for embroidering, after pressing  key, click the needle bar for replacement,

all identical needle bars are selected, Replace needle bar values according to requirements.

Press  key once again to exit replacement operation.

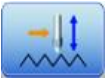



5.3.7 Change Work Mode


In the working status, click  to change working mode, each time press key to change a working mode (Circulation Changes), followed by  automatically change color automatically start,  automatically change color manually start,  manually change color manually start.

When it's in the manually change color manually start mode, the set color sequence is invalid. After power off and renew start, it'll not change.

5.3.8 Switch Embroidery Mode


The aim is to achieve complement embroidery operation, users can move stitch track to the specified position by idling embroidery.

In the working status, click  to change embroidery mode, each time press the key to change a embroidery mode (Circulation Changes), followed by  normal embroidery,  low speed idling embroidery,  high speed idling embroidery.

 low speed idling embroidery:

Stop status, push the switch in the right a time (low speed idling move forward), main axis don't move, the frame goes forward along the embroidery stitch, then push the switch in the left to stop low speed embroidery stitch.

Stop status, push the switch in the left a time (low speed idling move back), main axis don't move, the frame move back along the embroidery stitch, then push the switch in the left to stop low speed embroidery stitch.

 high speed idling embroidery:


Stop status, push the switch in the right a time (high speed move forward), main axis and

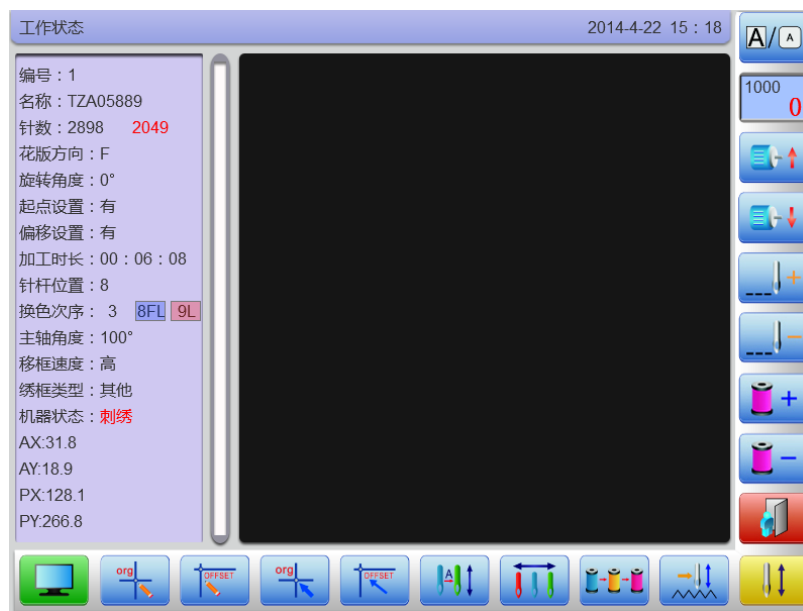
frame don't move, the stitches in the embroidery progress increasing, then push the switch in the left to stop, the frame directly move to the forwarded stitch position.


Stop status, push the switch in the left a time (high speed move back), main axis and frame don't move, the stitches in the embroidery progress decreasing, then push the switch in the left to stop, the frame directly move to the back stitch position.

5.3.9 Position Idling Embroidery

Position idling embroidery, including add specified stitch, reduce specified stitch, go forward a color, go backward a color.

In the working status, click , show as:




After finishing idling embroidery, click  to return working status.



5.3.9.1 Add the Specified Stitches/Reduce the Specified Stitches

In the position idling embroidery interface, click  or  to choose "Add the Specified Stitches" or "Reduce the Specified Stitches" operation, show as:




Writing the needed stitches, click , the frame will directly move to the specified stitch position.

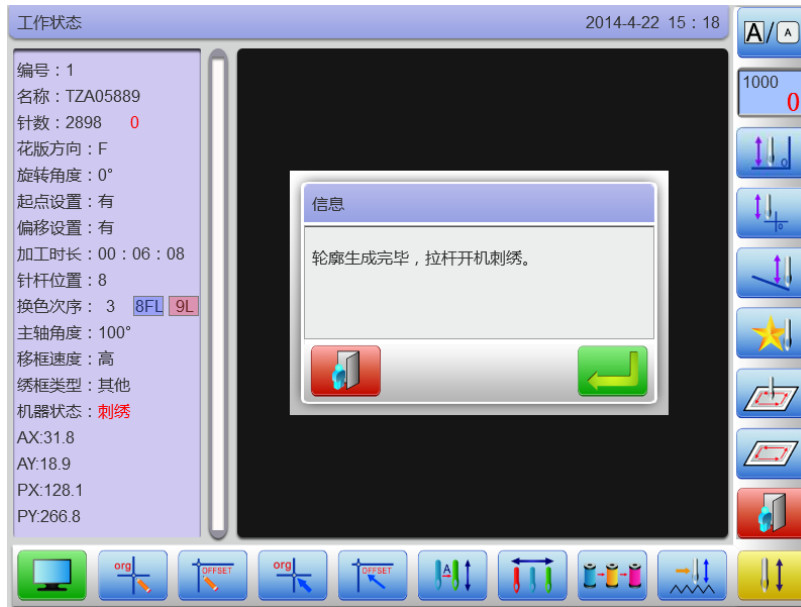
5.3.9.2 Forward a Color/Backward a Color

In the position idling embroidery interface, click  or  to choose "Forward a Color" or "Backward a Color" operation, the frame will directly move to the specified stitch position.

5.3.10 Embroidery Design Contour


After setting design's origin, if need to embroidery contour, we can do the operation. the operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.

In the working status, click , the system generate contour, then pop-up the interface, show as:



Click the "Switch Embroidery Contour", when completed, the frame will automatically return the current design's origin to stop, and then can do the other operation.





If don't need to embroidery contour, click  to quit.


5.3.11 Embroidery Straight Angle

When set design's origin, if need to embroidery straight angle, we can do the operation. the operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.





In the working status, click  to turn to the second page, click , show as:




Writing the value of XY direction, click , it'll pop-up a dialogue "generated finished, switch start embroidery", when completed, the frame will automatically return the current design's origin to stop, and then can do the other operation.

5.3.12 Embroidery + Shape

When set design's origin, if need to embroidery + shape, we can do the operation. the operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.

In the working status, click  to turn to the second page, click , show as:







Writing the needed size of XY direction, click , it'll pop-up a dialogue "generated finished, switch start embroidery", when completed, the frame will automatically return the current design's origin to stop, and then can do the other operation.

5.3.13 Embroidery Straight Line




Embroidery straight line is through manually move frame, set straight line to position operation.

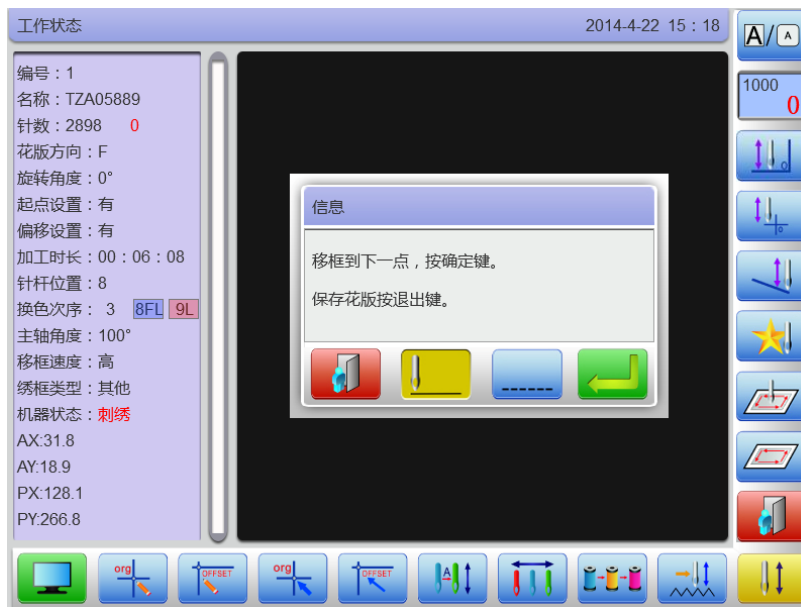
the operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.



In the working status, click  to turn to the second page, click , it'll pop-up a dialogue "Move the frame to the start point, click confirm key", move the frame to the needed start position, click , it'll pop-up a dialogue "Move the frame to the end point, click confirm key", move the frame to the needed end position, click , embroidery the straight moved line. when completed, the frame will automatically return the current design's origin to stop, and then can do the other operation.






5.3.14 Shift Frame to Generate Design




The function is aim to conveniently position embroidery materials.
The operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.

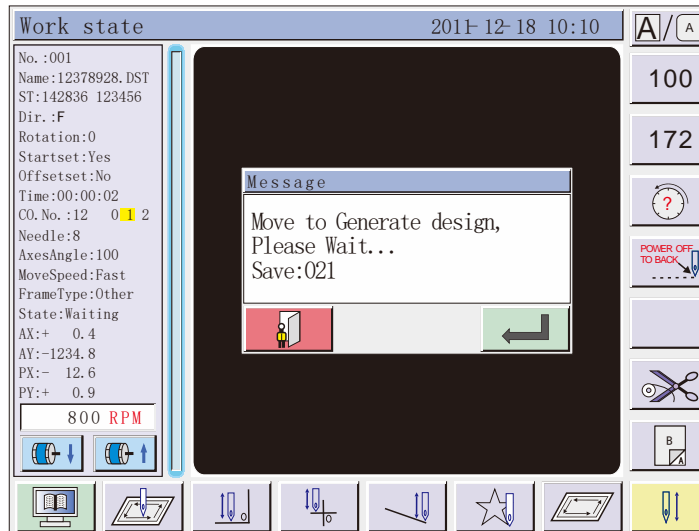
In the working status, click  to turn to the second page, click , Writing the needed stitches according to your requirement, the default is 3.5mm, click , show as:




Generated design stitches tracking instruction:  embroidery by stitch tracking,  embroidery by jump stitch. The selected mode background will be change as yellow.

Click     to move the frame to the next position, click , in the operation progress, if the moved distance need transition by jump stitch mode, before moving

frame, click  to choose jump stitch, after moving frame, again click . Repeat the above operation until completed. click , show as:





Save to the memory's design number will automatically generate.

Click  to embroidery the generated design, the frame will automatically move to the original design's origin point to start embroidery, when completed, the frame will automatically return the current design's origin to stop, and then can do the other operation.

5.3.15 Check Embroidery Range

After setting the start point, if need to check design's embroidery range, whether to exceed the work area, or the current start point cause limit? We can check the range. the operation only can be set before when the switch embroidery don't. If the switch starts, we can't do the operation.




In the working status, click  to turn to the second page, click , the frame is not in the origin, the system will return the origin, and then check the limit, if the current designs don't set origin, directly check the limit, and if the current set start point cause limit, the system will automatically adjust, and start as the point; if the design exceeds the set rane, the system will pop-up a error message.

5.3.16 Power off and Return the Working Point to Embroidery

Mainly used to operate after power on when suddenly power off in the embroidery running progress, frame move error.


When the frame type as "Other", it's not effective until operated the "find the absolute

origin",.

In the working status, click  to turn to the second page, click , the system will show "please confirm the limit switch work", click  to find absolute origin, then automatically move to the position that embroidered before power off to stop. Start the switch can continue to work.




5.3.17 Check the Proportion between Design and Frame

The operation only can be set when it's in the embroidery stop.
When the frame type is "Other", the operation is invalid.

After embroidery stop, click , it'll show the actual proportion between design and frame. Press it again, it'll return the full-screen to show design.
After start switch, the interface will be full screen.

5.4 Embroidery Running Status

In the embroidery running status, only can set main axis lift speed.

Click   to decelerate or accelerate speed, then click .

5.5 Start Switch Operation (Rod Operation)

After the completion of the embroidery relevant parameter, we can start switch to working.

When stop in the embroidery status: start the switch in the right to embroidery, start the switch in the left to backward the needles.

When backward the needles in the embroidery status: start the switch in the left to stop backward needles.

When it's in the embroidery running status: start the right switch more than 3 seconds, the main axis will embroidery by the min speed; start the left switch a time to stop.

5.6 Machine Head Switches Control and Indicator

When the switch is in the middle:
The machine head is working status, the indicator is green.

When breaking automatically alarm in the embroidery, the indicator will change red, bottom alarm, indicator is red, and it'll enter complement embroidery status; when backward needles start, indicator is orange, after finishing complement embroidery, the indicator will be green.

When indicator is green, start the switch up a time, indicator change as red and enter complement embroidery status. When indicator breaking change as red, start the switch up a time, clear complement embroidery, restore the green.

In the halfway of complement embroidery, toggle the switch which is in the complement embroidery, the machine head will automatically lock and stop, indicator change as green; toggle the switch that don't embroidery, the machine head will automatically work, indicator will be orange.

When the switch is in the bottom:

The machine head is closed status, indicator is off.

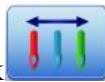
5.7 Sequin Machine Head Switches Control and Indicator

Toggle the switch from up to middle, indicator is green, the landing gear put down (machine lock open), toggle the switch up a time, the film motor will work; toggle the switch up more than 2 seconds, indicator will change as orange, release the switch, landing gear will automatically rise (when there is pressure)

When switch is in the middle, indicator is orange before entering sequin embroidery, landing gear lift, and wait. When entering sequin embroidery, landing gear will automatically put down, indicator is green.

The sequin machine head switch is in the up, indicator is off, and close landing gear (when there is pressure, it'll rise).




Chapter 6 Manually Change Color



In the working or preparation interface, click  to manually change color, it'll pop-up a numeric key, writing the needed value according to your requirement.


Chapter 7 Manually Trim

Manually trim operation, which can trim bottom together and only trim the bottom.

Click  in the touch screen or click  in the panel to do the operation,  in the touch screen only can trim the bottom.



Chapter 8 Frame Origin Operation

Frame origin operation, includes manually set origin, find absolute origin, and set software limit.

In the main menu, click  to enter "Frame Origin Operation", show as:



8.1 Manually Set Frame Origin



In the frame origin interface, click  to choose operation, it'll pop-up a dialogue "whether to set the current point as frame origin point?", click  to complete, PX/PY

coordinate is 0.0.

8.2 Automatically Find Frame Absolute Origin

Absolute origin is that use frame limit to detect frame's absolute position, to ensure that use power-off function to correctly embroidery when it has accident in the embroidery halfway.




The function is that the system automatically find, must confirm limit sensor effective, or cause machine destroy.


In tabouret origin interface, press  key to select operation. The interface will pop up a dialogue "Please confirm the limit switch is in normal operation." Press  key to start absolute origin searching. After searching is completed, the tabouret will return to the stop point before searching automatically.

After absolute point is searched, the operation is always valid if the tabouret is not moved after power failure.

8.3 Set Software Limit

The feature is only effective for the "Other" type in the frame setting.


In the frame origin interface, click , it'll pop-up a dialogue "Move frame to the upper left corner, press confirm", click , and then show a dialogue "Move frame to the lower right corner, press confirm," click  to complete.

Cancel software limit: when enter the software limit interface, don't move frame, continuously click  2 times to cancel the software limit.


Chapter 9 Frame Setting

The feature is used to set cap frame and the size and the dimension from absolute origin to the center of A-E frame.

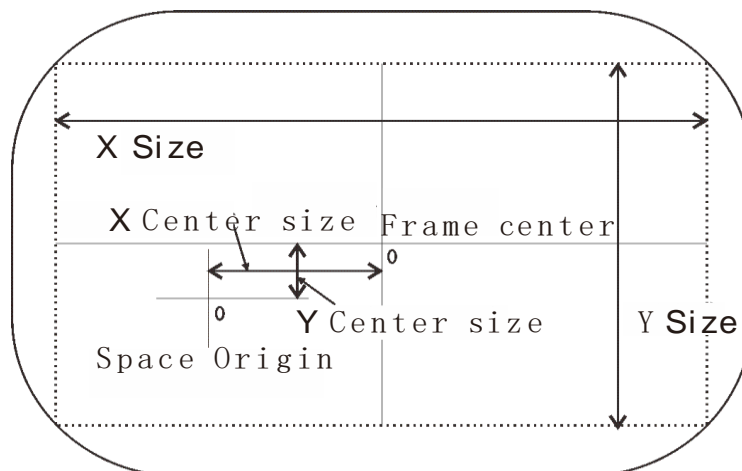


In the main menu, click , show as:



Set the value according to your requirements, then click  to save.

Tabouret Setting Diagram:



Chapter 10 Production Statistics


The feature is used to check production statistics and clear statistics.

In the main menu, click , show as:

生产统计 2014-4-22 15:18

编号	名称	断线次数	总完成数	刺绣总针数
10				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

Click  to clear the current statistics value.

Chapter 11 Main Axis Jog Operation

The feature is used to stop main axis position.

Do the jog operation according to your requirements.



jog to 100 degree (zero)



jog to 100 degree (zero)



jog to 172 degree, when the needle need to stop and move frame in the batches embroidery, press key to jog 172 degree.

It can move frame when the main axis is between 160° - 180° , the others can't.

Note: please confirm to release the cloth clip, or break the needle and destroy the embroidery materials.




jog to any angle, press the key, it'll pop-up a dialogue, write the required angle,

click  to confirm.

Chapter 12 Language







In the main menu, click  to switch the language.

Click key to choose the required language.



Chapter 13 Set Embroidery Parameters

According to the machine configuration and embroidery processing demand different, need to change some of the commonly used parameters to meet the job requirements.

In the main menu, click  to enter "Embroidery Parameter", click the modified parameters, click  or  to change, then click  to save.

Embroidery parameter definitions and rang, see **Table 1**.

Restore Factory Setting: system in the factory, the set parameters can meet most users' demands, if changed the parameters, and the effect not good, you can restore the setting.

In the "Embroidery Parameter" interface, click  to restore factory setting, it'll pop-up a dialogue "if restore factory setting or not", press  confirm.

Chapter 14 Set Machine Parameters

The parameters is only for professional and technical person, the others can't change, so as to avoid machine is not working.

Chapter 15 User Management

It is only for professional and technical person, the others can't change, so as to avoid machine is not working.

Chapter 16 Remove Restriction

Remove Expired Lock

Because of restriction, Machine expired, system will automatically lock, enter the password, show as:


解除限制 2014-4-22 15:18

设备编号 : TZA00810

到期次数 : 1

解除密码 :

1 2 3
4 5 6
7 8 9
x 0 CL

Enter the password from the supplier, click  to remove.

Chapter 17 System Test

The operation mainly is used to repair and maintenance.


In the main menu, press key to enter "System Test", show as:

Machine test





17.1 Input Test



In the interface, click , view the change of input status, if not change, the current signal failure, please check and repair.

17.2 Output Test



In the interface, click , each test item corresponding  key, check output, if machine no action, the current output failure, please check and repair.

Hook test, each press key a time, hook knife do the alternation action between extend and reverse.



Trim test, each press key a time, trim motor do the alternation action: turn half and stop, then turn half in the same direction.


Buckle test, each press key a time, electromagnet attract 2 seconds and automatically disconnect.


Left sequin test, each press key a time, the sequin gear will drop, send sequin 3 times, and up.

Right sequin test, above all.


17.3 Axis Test

In the interface, click , each test item corresponding  key, check output, if machine no action, the current output failure, please check and repair.

XY axis test, press the up and down key to modify the motor's moving pulses (1-127), the default is 127 pulses, click .

Main axis test, click , main axis will begin to rotate in 100rpm, press the up and down key to change main axis speed. Check the target speed is same as the actual speed.(if 1000rpm, error is 5rpm.)


17.4 Machine Head Test

In the interface, click , click numbers key to test needle, check breaking testing, if output error, please check and repair.

Side line test: close side line, the icon light is red, after open, it'll turn green.

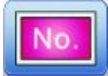
Bottom line test: toggle the detection wheel, the icon light will change following.

Chapter 18 System Information

In the main menu, click .


18.1 System No.

Used to check system's number.

In the system information, click  to check.

18.2 System Update


Used to update system's software.

In the system information, click . Don't power off when updating, it'll take 3 minutes to complete, then will automatically enter working interface.

The update no effect on the current status, can continue to do the previous operation.

Chapter 19 IP Set



In the main menu, click .

The IP must be same as LAN IP, otherwise can't link. That is the first three paragraph number same, the last ID is different.

Chapter 20 System Initialization

Machine power on, and after displaying icon, continuously press “**Right**” 5 times, system initialization completed, the buzzer will beep 3 times, then automatically enter "Input Design" interface.

Chapter 21 Appendix

21.1 Parameter Table

Params Name	Params Function	Default	Range
Jump to Trim	Jump, trim or don't trim	3	1-9、 No
Length After Trim	After trimming, the larger the number, it'll be more longer.	3	1-7
Lock Needle at Jump?	If need to lock before jumping, to avoid off-line.	Yes	Yes、 No
Tread Broken Sensitivity	Side line breaking detection sensitivity	5 needles	3-9、 No
T.B Detect at Jump	If detection when jump	No	Yes, No
Check Bottom T.B	Bottom line breaking detection sensitivity	Low	High/Middle/Low, no detection
L.S Number after Trim	Lock after trimming start, avoid off-line	1	1-3
L.S Number Times Trim	Lock stitches when trimming, avoid off-line	1	1-3
Trim Top Thread Length	It need to lengthen when embroidery thin material	0.6mm	0.5-1.0mm
Auto Back When T.B.	Automatically return stitches after breaking, the breaking head will complement embroidery in advance	4	0-9
All Patch Stitch Number	The first few stitches that complement embroidery finished start all head	0	0-5
Header Patch Mode	Use single head or all head when complement embroidery	single	single、 all
Speed Down After Patch	If decelerate when complement embroidery finish completion point	Yes	Yes、 No
Auto Set Start	Continuous embroidery set as "Yes"	Yes	Yes、 No
Auto Back Start	If return the start point after embroidery finished, and end to end continuous embroidery set as "No"	Yes	Yes、 No
Back Steps of L.S	After slowly stitch a few while the bar back needles, it'll automatically continuous back needles	0	0-9
Slow Emb Speed	Main axis' speed	100	100-500

Long Sti. EMB Mode	Larger stitches embroidery mode	Low speed	Low speed 、 Jump
Auto Jump Stitches	When large stitches are jumping, exceed some distance, it'll automatically divide more than 2 needles for embroidery	6.5mm	6.5-8.5mm
Auto Speed Down ST	Stitches exceed some distance, decelerate to embroidery	6.0mm	2.0-9.0mm
Speed Down at Jump	Decelerate the proportion of the current speed when continuous jumping	80%	60%-90%
Main Axis Start Speed	Main axis' speed when starting	100	60-200
Main Axis Max Speed	Main axis highest speed set (limit by machine parameters)	750	550-1000
Move Frame Max Speed	Set high speed move frame, the larger the faster	5	1-9
Color Motor Speed	Speed that use stepper motor to change color	5	0-9
Same ST Auto Startup	Whether or not to automatically start when meet same color needle	Yes	Yes、 No
Stop Frame of Moving	Whether or not to stop when beyond frame	Yes	Yes、 No
Needles In A Head	The current machine used stitches	n*	1-15
Sequin Needle	Left sequin, right sequin, or left and right, if the sequin function closed in the machine parameters, it'll be invalid	left*	left、 right、 left and right
Sequin Max Speed	Main highest speed when start sequin	700	300-1000
Needle Of Boring	Carving Knife's needle position(not breaking detection)	0	0-n
Needle Of Cord	Rape embroidery needle position(automatically decelerate speed)	0	0-n
Max Speed Of Cord	The highest speed when it is in the rape embroidery	300	300-600
Repeat Embroidery	Whether or not to continue to embroidery after finishing embroidery	No	Yes、 No
Display Stitch Number	Whether or not to display the designs' stitches	Yes	Yes、 No
Filter 0 Stitch Data	Whether or not to filter 0 stitch in the embroidery	Yes	Yes、 No
Color Motor Speed	Embroidery background	Black	Black、 White

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Frame Control Type	Move frame mode, can adjust according to the situation	F5*	F1-F5,L
Frame Move Angle	The angle of moving frame, can adjust according to the actual situation	230*	170-270°
MoveFrame RepayTimes	Thin materials use positive compensation, thick materials use negative compensation, can adjust according to the actual situation	0	5%、0、-5%、-10%
Open Trim Function	Whether or not use trimming feature	Yes	Yes、No
Screen Saver Wait	Screen save time and feature	close	5、10、20、30minutes、close
BreakThreadUp	Whether or not rise landing gear after sequin breaking	Yes	Yes、No
Reset Frame	Whether or not to find absolute origin point after power on	No	Yes、No
Lifting Arm	Sequin gear mode	motor	motor、pneumatic
Left Sequin Size	Left sequin size	3*	3-9
Right Sequin Size	Right sequin size	3*	3-9
Voltage Of Solenoid	Adjust solenoid voltage value	2*	0-5
Start Push Delay	Extend buckling time while starting	1	1-4
Stitches value	Stitches adjustment speed within continuous stitches	20*	1-20
Main Axis Brake Delay	The larger the number, the later the stop angle	6*	2-8
Up Line Check	Detect the spring' sensitivity, the larger the number the more sensitivity	2*	1-9
After trimming move frame	Whether or not move frame after trimming	No	No、1-9
Hook Motor Speed	Hook stepper motor's adjustment speed, the larger the number, the faster the speed	5*	1-5
Piece Speed	Lift stepper motor's adjustment speed, the larger the number, the faster the speed	3*	1-4

n* the needle bar value (no default)

-* set according to your requirements (no default)

21. 2 System Error and Approach

Error Info	Reason	Solution
Main axis not 100 degree	Main axis don't stop at the 100 degree	Jog or manually move to 100 degree
Main axis don't turn	1.main axis controller no signal or power input 2.main axis motor no power input or input error 3. Controller or motor destroyed 4. Coder disconnect	1.check controller's signal and power cable 2.check motor input power 3.change controller or motor 4.connect coder
Main axis reversal turn	1.inverter output power reversed 2.servo controller parameter set error 3.coder A/B phase reversed	1.adjust inverter output UVW any two phase 2.reset servo controller parameter 3.adjust coder A/B cable
Coder no zero position	1.coder zero signal output 2.the connect cable between coder and main board is error	1.change coder 2.check or change cable
Change color overtime	1.change color motor not turn 2.some part of change color machine stuck 3.the cable from motor to power board is error	1.check motor or cable 2.repair or change the stuck machine part 3.check or change cable
No needle position	1.needle position detection sensor wheel in the wrong place 2. Needle position board destroyed	1.adjust needle position detection sensor wheel place 2.change detection board
Needle position is not in the place	1.place detection sensor wheel in the wrong place 2.needle detection board destroy	1.adjust place detection sensor wheel place 2.change board
X motor driver error	1.X driver overvoltage or over-current protection 2.driver destroyed	1.check driver input power, then renew to power on 2.change driver
Y motor driver	1.X driver overvoltage or	1.check driver input power, then

error	over-current protection 2.driver destroyed	renew to power on 2.change driver
Hook is not the place	1.proximity switch detection is not in the place 2.proximity switch destroyed	1.manually adjust hook place 2.change proximity switch
Hook motor error	Hook motor or connect cable error	Check or change cable
Trim is not the place	1.proximity switch detection is not in the place 2.proximity switch destroyed	1.manually adjust hook place 2.change proximity switch
Sequin needle position error	Sequin needle bar set error	Reset change color sequence
+X limit error	+X direction limit	Manually move frame in the opposite direction
-X limit error	-X direction limit	Manually move frame in the opposite direction
+Y limit error	+Y direction limit	Manually move frame in the opposite direction
-Y limit error	-Y direction limit	Manually move frame in the opposite direction

Appendix: Installation of a double-dip detection methods:

When using a double-dip detection of a break detection, need to toggle DIP switch on the bottom to adjust the bar examination. DIP bottom of the first inspection of an adjustment as a singular needle bar (ON) or double the number of needle bar use (OFF), the first two adjustments at the end of the sequence is used as a forward detection (OFF) used in sequence or reverse (ON). SW1-SW8 is positive, SW8-SW1 reverse.

Bottom inspection of the individual as 8 optocoupler design, namely SW1-SW8.

When used as a 15-pin:

Here one using eight optocoupler used as a singular needle bar, SW8 to pin 1, SW1 for the first 15-pin, the DIP 1,2 are appropriated to the ON position.

Above an optocoupler using 7 (the SW8 cut), as the number of double needle bar use, SW1 is the 2-pin, SW7 for the first 14-pin, the DIP 1,2 are appropriated to the OFF position.

When using a 12-pin:

Here one using 6 optocoupler (cut to SW7-8), used as double the number of needle bar, SW6 is the 2-pin, SW1 for the first 12-pin, will be appropriated DIP 1 OFF, 2 to the ON position.

Above one using 6 optocoupler (cut to SW7-8), as the singular use of the needle bar,

SW1 for the first pin, SW6 for the first 11-pin, will be appropriated DIP 1 ON, 2 to the OFF position.