



Computerized Embroidery Machine

8S

OWNER'S MANUAL

RiCOMA(Huizhou)Co.,Ltd.

CONTENTS

PART 1 CONTROL SYSTEM INTRODUCTION	1
1.1 SYSTEM OVERVIEW	1
1.2 PRECAUTIONS	1
1.3 WORKING ENVIRONMENT	2
1.4 SYSTEM POWER SUPPLY AND EARTHING	2
1.5 OPERATION PANEL AND KEY FUNCTION INTRODUCTION	3
1.5-1 Key Function Introduction.....	3
1.5-2 Icons Description of Touch Keys.....	3
1.5-3 Function Introduction.....	4
 PART 2 EMBROIDERY CARD INPUT OPERATION	 6
INPUT U-DISK EMBROIDERY CARD TO MEMORY	6
 PART 3 EMBROIDERY CARD MANAGEMENT	 8
3.1 SELECT EMBROIDERY CARD FOR EMBROIDERING	8
3.2 DELETE SINGLE EMBROIDERY CARD	9
3.2 OUTPUT EMBROIDERY CARD TO U-DISK	9
 PART 4 EMBROIDERY CARD	 10
4.1 EMBROIDERY STATUS SWITCHING	10
4.2 PREPARATION STATUS	11
4.2-1 Set Embroidery Card Parameters	11
4.2-2 Switch Tabouret.....	13
4.3 WORKING STATUS.....	14
4.3-1 Embroidery Card Origin (Starting Point) Setting.....	14
4.3-2 Camera positioning (only for machines with this feature).....	16
4.3-3 Offset Point (Highest Point of Tabouret Center) Setting	16
4.3-4 Return to Origin (Starting Point).....	16
4.3-5 In and Out Tabouret Operation	16
4.3-6 Return to Stop Point.....	17
4.3-7 Set Color Changing	17
4.3-7-1 Set Color Changing Sequences	18
4.3-7-2 Applique Offset, Low Speed Embroidering and Needle Bar Replacement.....	19
4.3-8 Embroidering Mode Switching	20
4.3-9 Float.....	21
4.3-10 Operation of Returning to Embroidering Point in Power Failure.....	21
4.4 EMBROIDERY RUNNING STATUS.....	22
4.5 BAR DRAWING OPERATION	22

PART 5 LETTERS TO GENERATE EMBROIDERY CARD	23
PART 6 MANUAL OPERATION FOR COLOR CHANGING.....	25
PART 7 MANUAL TRIMMING.....	26
PART 8 TABOURET ORIGIN OPERATION.....	27
8.1 MANUAL TABOURET ORIGIN SETTING	27
8.2 AUTOMATIC SEARCHING FOR ABSOLUTE ORIGIN OF TABOURET.....	27
PART 10 REPORT	29
PART 11 SPINDLE JOGGING OPERATION	30
PART 12 LANGUAGE SWITCHING.....	31
PART 13 EMBROIDERY PARAMETERS.....	32
PART 14 MACHINE PARAMETERS SETTING	33
PART 15 USER MANAGEMENT.....	34
15.1 TIME SETTING.....	34
15.2 UNFREEZE	35
PART 16 SYSTEM TEST	36
16.1 INPUT TEST.....	36
16.2 OUTPUT TEST	36
16.3 SPINDLE TEST.....	37
16.4 MACHINE HEAD TEST (USED ONLY IN ORGANIC HEAD PANELS).....	38
PART 17 SYSTEM INFORMATION	39
17.1 SYSTEM NUMBER AND VERSION INFORMATION CHECKING.....	39
17.2 LOGO UPDATE	39
17.3 INTERFACE UPDATE	40
17.4 SOFTWARE UPDATE.....	40
PART 18 NETWORK SETTING.....	41

PART 19 APPENDIX	42
19.1 PARAMETER TABLE.....	42
19.2 SYSTEM ERRORS AND COUNTERMEASURES LIST	45

Part 1 Control System Introduction

1.1 System Overview

Thank you for using computer embroidery machine control system of our company!

The system can be collaborated with various kinds of embroidery machines for using to satisfy different requirements of embroidery. It has satisfactory effects for thin material, thick material and three-dimensional embroidery!

Advanced RAM + DSP dual-CPU control technology, Make the system faster, can multi-task operation, in the embroidery can transfer files and other operations., and enables the mechanical operation more stabled. Additionally, it reduces noise of complete machine and prolongs mechanical service life!

Before using the machine, please read the operation manual carefully to ensure correct using of the system.

Please keep the operation manual properly for easy reference.

As configuration varies, some machines do not have partial function listed in the manual. Details of corresponding operation function shall prevail.

1.2 Precautions

Please don't take maintenance and commissioning for electrical system by non-professional personnel, which may reduce safety performance of equipments, enlarge accident, or even cause personnel injury and property loss.

Some parts in the case may have high voltage. After powering on the system, please don't open the case cover to avoid causing accidental injury.

Please replace protective tube according to the product identification requirements strictly to ensure personnel and property safety.

Power switch of the product has over-current protection function. If over-current protection switch is actuated, it must be closed again after 3 minutes.

Please don't pile up debris around the control cabinet. During using process, clean the

surface of control cabinet and dust on filter regularly to ensure good ventilation of system and be conducive for heat radiation.

Without authorization of the company, please don't modify the products. Otherwise, the company undertakes no liability for the caused results!

Warning

When it is necessary to open the case cover, it can only permit to touch the parts in the electrical cabinet under the guidance of professional personnel after 5 minutes.

Prohibition

When the machine is in operation, it is prohibit touching any moving part or opening control equipment. Otherwise, it may cause personnel injury or cause abnormal operation of machine.

It is prohibit operating electrical equipments in working environment with moisture, dust, corrosive gases and flammable and explosive gases. Otherwise, it may cause electric shock or fire.

1.3 Working Environment

Good ventilation, healthy environment, less dust;

Working space temperature: 5-40 °;

Working Space Relative Humidity: 30% -90% non-condensing

1.4 System Power Supply and Earthing

The electric control system can use the following power:

Single phase AC100-240V/50-60HZ

According to different machine configuration, power consumption is between 0.1-0.4KW.

To prevent electrical equipment from causing electric shock or fire accidents due to electric leakage, over-current, insulation and other causes, please earth the electric control reliably.

Earthing resistance shall be less than 100 ohm, conductor length shall be within 20m and

conductor cross-section shall be greater than 1.0 mm².

1.5 Operation Panel and Key Function Introduction

1.5-1 Key Function Introduction



Manual trimming key: take manual trimming in operation status and preparation status.



Spindle jogging key: Press the key and job the spindle to 100 degree.

1.5-2 Icons Description of Touch Keys



Selection key: Used to select frameshift and lifting spindle speed.



Up, down, left and right keys: Move tabouret in embroidery card and preparation status.



1200
1000



Lifting spindle speed key: - key for deceleration, and + key for acceleration.



Set the start point and walk the surrounding of pattern.



Origin operation key



Offset point operation key



Returning to stop point key



Camera key, in a camera function, open the camera to adjust the flower version



Embroidery parameter setting



Empty go key, press color or press the stitch forward and backward



Embroidering way switching key (normally embroidering)



Manual color changing key, left side displays current needle position and right side displays spindle degree.



Report key



Setting key



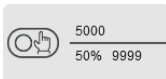
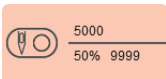
Back key



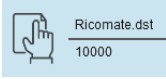
OK key



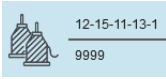
LED lighting switch



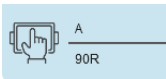
Embroidery status switching key



Select pattern embroidery and input embroidery card



Color changing setting key, left side displays current color needle bar and additional settings, and right side displays next needle bar and additional settings.



Toggles the frame and switches the desired frame in the ready state

Angle	F 80°
Copy	X 99 999.99 Y 99 999.99
Zoom	X:100% Y:100%

Set related parameters of patterns, and it can only operate embroidery under embroidery preparation status.

AX/AY: Display relative origin coordinates of embroidery card.

PX/PY: Display absolute origin coordinates of embroidery card.

Start key indicators: Readiness long red light, work status long bright green, red flashing break, mending color.

1.5-3 Function Introduction

The system has a friendly HMI operation mode. It is easy to be operated and learned. The system has powerful functions and is greatly convenient for user using. It has improved operational performance and efficiency.

With multilingual support, it can switch the operation system language based on the user's needs at all times.

With large memory capacity, the system can store 20 million stitches and 200 embroidery cards.

With multiple embroidery card input paths, it is extremely convenient for client's selection and using, such as Mobile U disk, network (PC software required).

The system supports multiple embroidery card file formats and can identify Tajima DST and Barudan DSB and so on.

Powerful parameter adjustment function can adjust various parameters according to the requirements in order to meet the required system control performance.

Automatic embroidery recovery function in power failure can recover to previous several stitches and continue embroidering automatically after there is a sudden power failure in embroidering process without having to worry about misplacement of embroidery card, to be free from complex re-alignment operation.

Equipment self-test function can take detection for the state of electrical equipment and parameters for convenient adjustment and maintenance.

For spindle stop position adjustment function, the user can take system parameter adjustment according to the features of respective embroidery machine to achieve accurate stop position.

Automatic embroidery card parameter memory function may take automatic saving for the set embroidery parameters or related data of embroidered card, including color changing, origin, offset point, embroidery parameter, repetition and other information for the convenience of using the same embroidery card.

Appliqu  offset function can set any color changing bar and take appliqu  out of frame for convenient appliqu  operation.

Accurate flower version Near and embroidery capabilities to meet you for taking the plate positioning and embroidery needs.

Part 2 Embroidery Card Input Operation


Embroidery card input operation is to input embroidery card in U disk into memory. It can be operated at embroidery preparation status and embroidery card status.


Embroidery card input is to input files on external storage medium into system memory for convenient embroidery selection. If there is no embroidery card in memory, it will enter into the interface when the system is started.

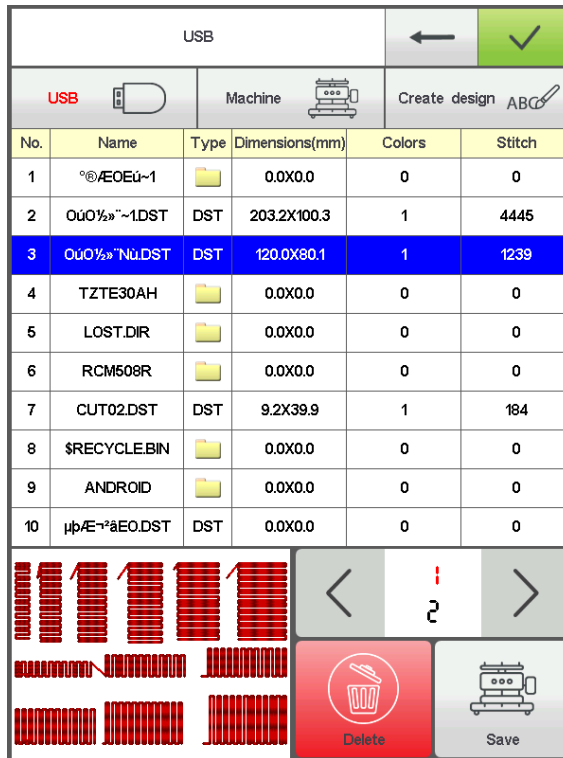
The system supports reading Tajima DST and Behringer DSB formats of embroidery card files.


Before reading the embroidery card, insert the U disk into USB interface, and then take operation panel key operation.


Input U-disk Embroidery Card to Memory


After U disk is inserted, press  key to enter into embroidery card management interface. It will read the contents in U disk, as in the following Fig.

When embroidery card interface is selected, press  key to switch to U disk interface.

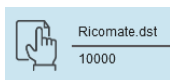


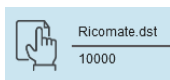
Click to enter the flower version, a preview of the currently selected file is displayed below the currently selected flower version of pin number, color, size and other relevant information and thumbnails. Press  key to save in the memory. Input speed is popped up automatically to display memory number and input speed. After input is completed, it returns to U-disk operation interface automatically and it can continue taking input operation.

If it enters into subdirectory of U disk, press  key to return to previous interface.

Press  key to return to main interface.

Part 3 Embroidery Card Management




In main interface, press  key to enter into embroidery card management interface, as in the following Fig:




If it is in U disk interface, press  key to enter into embroidery card management interface.

Machine					
No.	Name	Type	Dimensions(mm)	Colors	Stitch
1	folder	Folder	0.0X0.0	0	0
2	3DST	DST	178.2X93.8	6	3607
3	ZMK1DST	DST	58.6X15.1	5	893
4	DH19.DSB	DSB	420.0X55.8	2	4422
5	ZMK3DST	DST	36.9X15.2	3	559


3.1 Select Embroidery Card for Embroidering

Click embroidery card for embroidery. Currently selected stitch number, color, size and other related information and thumbnail are displayed on the right side. Press  key to skip to embroidery card parameter setting interface automatically.


If it is still in embroidery card status, it cannot select embroidery card, and related prompt information is popped out.




Press  key to return to main interface.

3.2 Delete Single Embroidery Card

In embroidery card management interface, press  key to enter into single deletion operation.

3.2 Output Embroidery Card to U-disk

In embroidery card management interface, select embroidery card to input. Click  key to input into U disk.

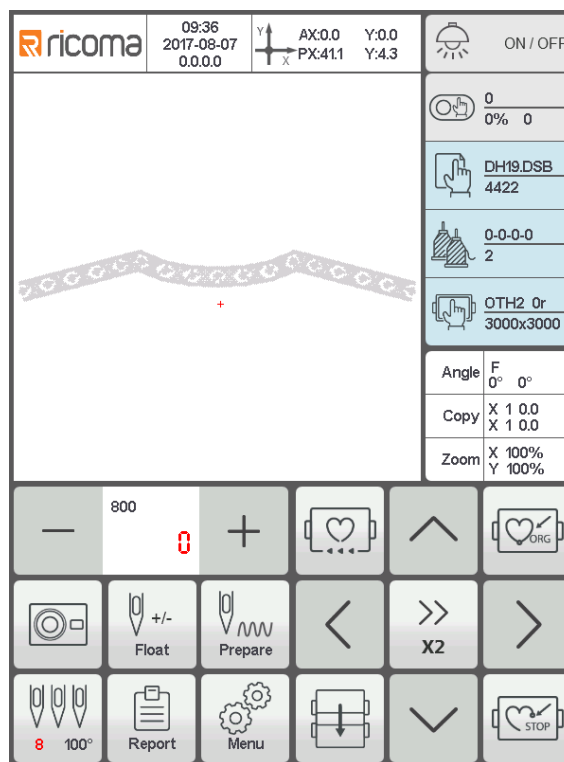
Upper value in    means current page, and lower value means max pages of current embroidery card number. Left and right keys can take page turning. However, max page turning value cannot be larger than max pages of current embroidery card.


Part 4 Embroidery Card


4.1 Embroidery Status Switching

It has 3 embroidery statuses, i.e. preparation status, working status and running status. It can take status switching via keys on interface. It enters into running status after drawing the rod to start embroidering, as in the following Fig.

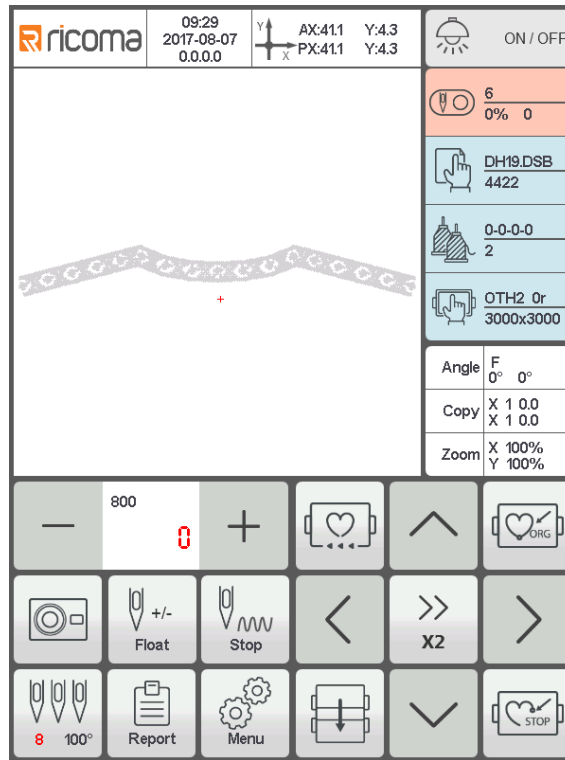
Preparation Status

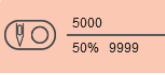



In preparation status, press  key, and pop up “Into Embroidering Status or

Not”. Press  key to enter into working status, as in the following Fig.

Working Status



In working status, press  key and pop up “Release embroidery status or not”.


Press  key to enter into preparation status.

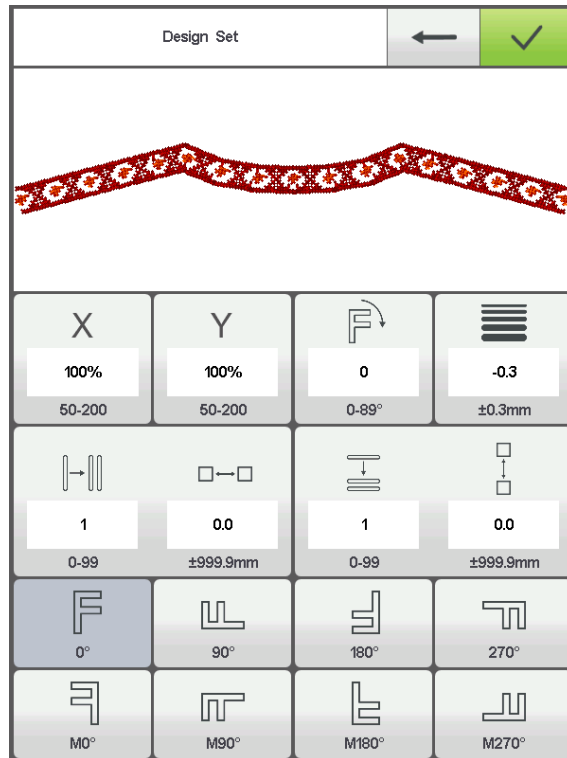
4.2 Preparation Status

In preparation status, it can take spindle jogging, trimming, tabouret switching, manual color changing, embroidery card parameter setting and embroidery card selection and other operation.

4.2-1 Set Embroidery Card Parameters

Angle	F 80°
Copy	X 99 999.99 Y 99 999.99
Zoom	X:100% Y:100%

In preparation status, press  key and take embroidery card parameter setting operation, as in the following Fig.



Modify values according to the embroidery. After modification is completed, press



key to save modification. Press



key to return to main interface.

Parameter Range Description:

Rotation directions: totally 8, i.e. default 0°, 90°, 180°, 270°, 0° mirror, 90° mirror, 180° mirror and 270° mirror

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

X/Y direction multiplying power: 50%-200%

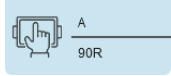
X/Y replication number: 1-99

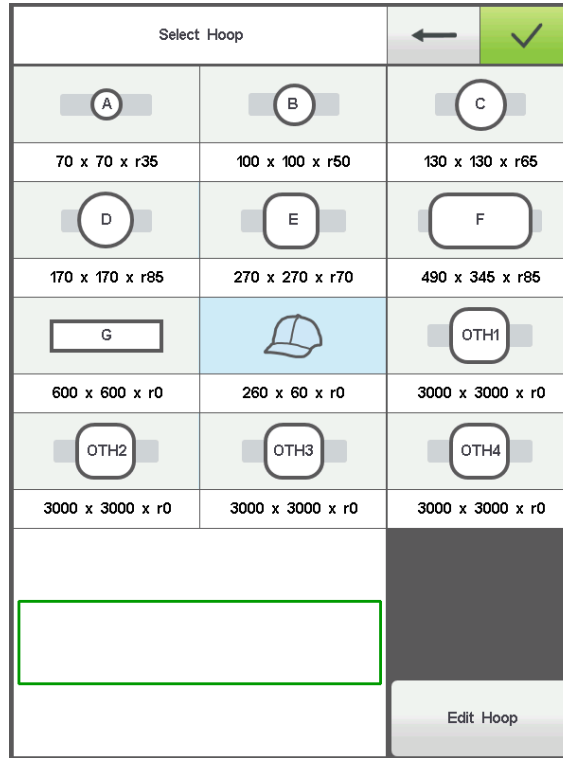
X/Y direction space: 0-±999.9mm


The control system takes mm as unit. It is input in 0.1mm when inputting digits, i.e. it shall input 1000 when inputting 100mm.

X/Y compensation (satin stitch): 0-±0.3

4.2-2 Switch Tabouret

In embroidery card parameter setting interface, press the input box behind  to enter into tabouret switching operation, as in the following Fig.



Select current embroidery used tabouret type. Press  key. When hat frame and A-G tabourets are selected, the tabouret will search absolute origin automatically, and stop at center of selected tabouret. Please pay attention to the tabouret movement.


See **Tabouret Setting** on embroidery range of hat frame and A-G tabourets.

Other tabourets don't take absolute origin searching. Embroidery range is also confirmed by software limits setting (See **Software Limits Setting** on detailed operation).


Select interface behind tabouret and return to preparation status automatically. If tabouret type is not selected, the system will continue to use previously used tabouret type automatically.

After hat frame is selected for using, currently selected embroidery card will be rotated 180° automatically, and other tabourets are not changed.

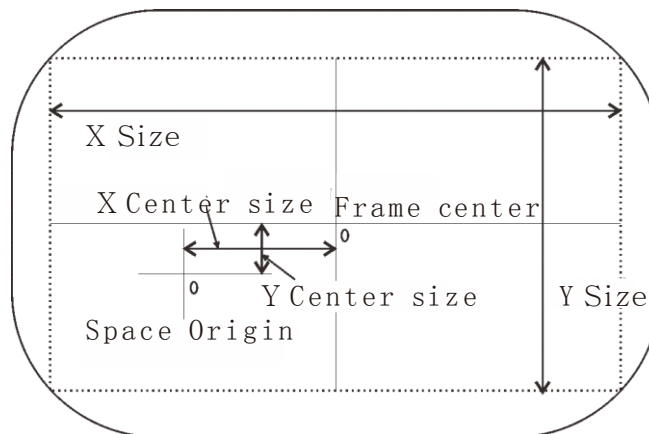
Edit hoop

If you need to modify the frame size, press the  key to set.。

Set tabouret related parameters according to the requirements. After setting is completed,

press  key to save setting.

Tabouret Setting Diagram:




4.3 Working Status

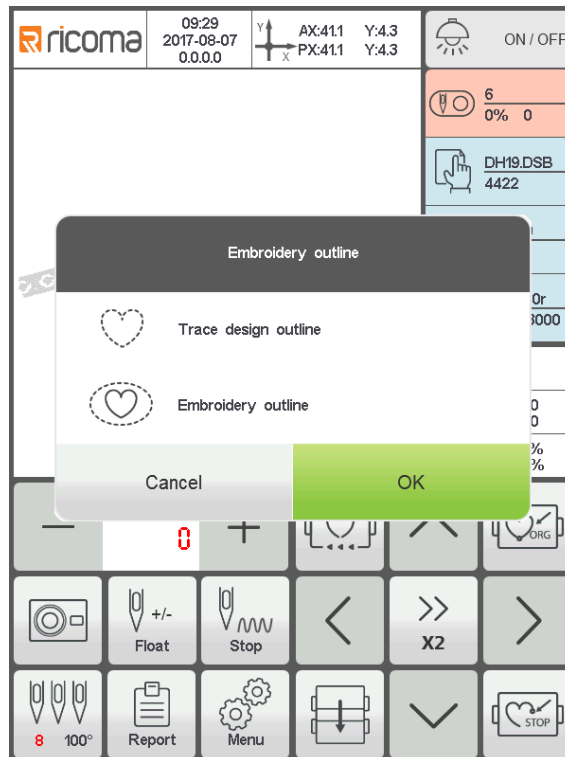
In working status, it can take embroidery card origin (starting point) setting, embroidery card origin returning, offset point returning, stop point returning, color changing sequences setting, spindle jogging, manual trimming, working mode changing, embroidering mode switching, embroidery card contour, embroidery range checking and embroidering point returning operation in power failure.

4.3-1 Embroidery Card Origin (Starting Point) Setting

In working status, move the tabouret to required embroidery card origin (starting point).

Press  key to take origin setting. If the current version of the embroidery in the middle, will pop up a prompt box. Operate as needed. The tabouret walks along the max range of embroidery card. If the position is insufficient, it modifies the origin (starting point)

automatically. After being modified, it prompts error if the position is still insufficient. After the origin (starting point) is positioned, AX/AY coordinates are clear. Figure:




Press to  return to the main interface.


After the embroidery card origin is set, if empty stitches embroidery card contour and embroidering embroidery card contour are required, it can use the operation.

The operation is only operated after setting embroidery card origin and before taking bar drawing. It cannot be operated after the bar drawing.

Empty stitches card contour





After setting start point and searching embroidery card contour, press  key and the tabouret is started idling from start point along the contour (precise range). After idling is finished, it returns to start point automatically.

Embroidering card contour

After setting start point and searching embroidery card contour, press  key and the tabouret is started embroidering contour from the start point and along the pattern surrounding. After embroidering is finished, it returns to start point automatically.

4.3-2 Camera positioning (only for machines with this feature)

Camera positioning is mainly to facilitate the use of embroidery materials.

In the work interface, press the  key to open the camera, shift the embroidery material on the cross of the center point and the cross on the center of the screen, the   key rotation of the cross and cross the material on the cross, the  button to save the rotation settings. Flower version of the file rotation.

4.3-3 Offset Point (Highest Point of Tabouret Center) Setting



Offset point is mainly for conveniently embroidery material drawing and releasing and applique placement.

In “Other Parameters” of “Embroidery Parameters”, set “Automatic offset out of taboure” as “Yes”. After it is set properly, the taboure returns to embroidery card origin to start embroidering after start-up every time. After the embroidery is completed, it is out of the taboure and stops at the offset point.

Offset out of the taboure depends on the set dimensions of taboure, and it is deviated to the highest position of currently selected taboure automatically.

4.3-4 Return to Origin (Starting Point)

In the embroidering process, if it is required returning to the origin to re-start the embroidering, it can take the operation.


Pres  key and the system will pop up “Terminate embroidering and return to the origin?” Press  key and the taboure is moved to the embroidery card origin and stop. AX/ay coordinates are cleared.

4.3-5 In and Out Tabouret Operation

In the embroidering process, if is required returning to the offset point, it can take the

operation.




Press  key once Move the frame to the highest point of the current frame will stop. Press the key gain, the taboure is moved to stop point and stop and it can continue embroidering.

4.3-6 Return to Stop Point

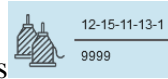
In the embroidering process, after taboure is moved manually, when it is required returning to the stop position of embroidery machine, it can take the operation.

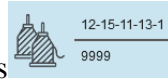


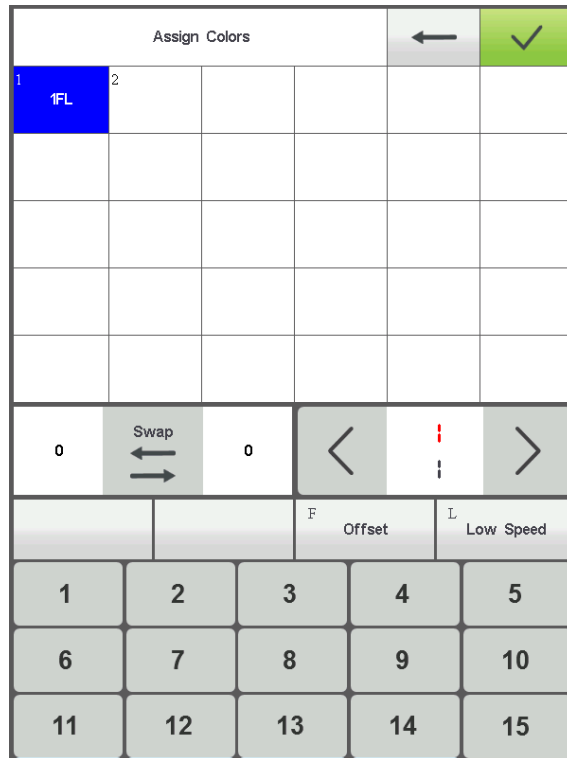
Press  key to take operation of returning to the stop point. After the key is pressed, it is moved to the manual frameshift position automatically and stopped.

4.3-7 Set Color Changing

Color changing setting includes color changing sequences setting and needle bar replacement.



In working interface, press  key to enter into color changing interface. It defaults to enter into color changing sequences operation, as in the following Fig.






4.3-7-1 Set Color Changing Sequences

In color changing sequences setting interface, press number key to enter into color changing sequences setting. Change color 1-200 times from the 1st page (the system supports max 200 times of color changing sequences). When the interface is opened, the cursor is started from the last value position with needle bar automatically. Press the number key and input corresponding needle bar number of current color changing sequence. The cursor is moved to next color changing sequences automatically.


In the setting process, if current needle bar number has error, click the selected number to reset the value.

If there is no color changing sequence setting, it uses current needle bar to take embroidering.



If color changing times are not set as the max color changing number of current embroidery card, use currently set color changing number to take cycle orders.

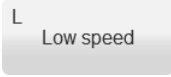
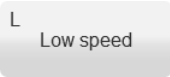
Upper value in    means current page, and lower value means max pages of current embroidery card number. Left and right keys can take page turning. However,



max page turning value cannot be larger than max pages of current embroidery card.

After setting the  button to save the color change order, if the current version of the color change order is not set, the system saves the order before the cursor and automatically cycle.

4.3-7-2 Applique Offset, Low Speed Embroidering and Needle Bar Replacement

If a certain color changing sequence that the cursor is located requires offset out of taboure (appliqu é) , Click the needle bar has been set, press  key once before No Input needle bar and “F” is displayed behind current needle bar number. If to cancel offset out of taboure setting, press  once again.

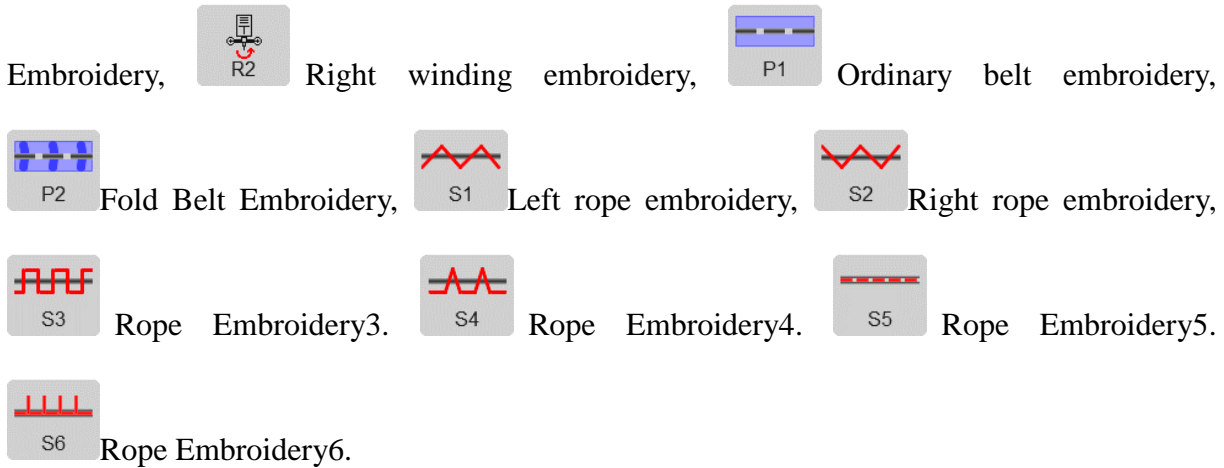
If a certain color changing sequence that the cursor is located requires deceleration for embroidery at the embroidery (slowed speed is set at “low embroidering speed” in “speed parameters” of embroidery parameters), Click the needle bar has been set, press  key once before No Input needle bar and “L” is displayed behind current needle bar number. If to cancel low embroidering speed setting, press  once again.


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.

Rotary Belt needle Bar set (function Limited):

It is used only in the machine with the function of tape embroidery. The default is mounted on the right side, using the first needle disconnection detection.

The Belt embroidery function has 10 Working mode selection,  Left winding








When you need to set the tape embroidery mode, press  The key enters the selection interface.


After the setting is completed, press  key to save current setting.


4.3-8 Embroidering Mode Switching


Embroidering mode switching is mainly to achieve compensation operation. The user can move the embroidery needle to specified location via air embroidering.


In working status interface, press  key to change embroidering mode. Change one mode when processing the key once (cycle changing) and the key display is changed along with it. The embroidering modes are  normal embrodering,  low speed empty stitch embroidering,  high speed empty stitch embroidering.


 Low speed empty stitch embroidering:

In stop status, press  key No loosen. The taboure is forwarded along the embroidering stitches. Release the keys again and stop low speed forwarding.

In stop status, press  key No loosen. and the spindle is not moved. The taboure is backed along the embroidering stitches. Release the keysagain and stop low speed backing.

 High speed empty stitch embroidering:

In stop status, press  key No loosen. Spindle and embroidery frame does not move, embroidery needle asc progress, release the button down after the frame to move directly to the position forward stitch points.

In stop status, press  key No loosen. Spindle and embroidery frame does not move, embroidery needle desc progress, release the button to move the frame down to a position directly back stitch points.

4.3-9 Float



Positioned emptying:

In stop status, key on right side is switched to the positioned emptying operation interface.



adding specified stitches: After pressing the key, a figure keyboard is popped out.

Press figure key to input required stitches. Press  key and the tabouret is moved to specified stitches and stopped automatically.



reducing specified stitches: After pressing the key, a figure keyboard is popped out.

Press figure key to input required stitches. Press  key and the tabouret is moved to specified stitches and stopped automatically.



Fowarding one color: After pressing the key, it is moved to start position of following color and stopped automatically.



backing one color: After pressing the key, it is moved to start position of previous color and stopped automatically.


4.3-10 Operation of Returning to Embroidering Point in Power Failure

The operation is mainly applied for sudden power failure in embroidering process and when the tabouret appears blocking. It takes operation after powering on.

When the tabouret type is “Other”, the operation is only valid when absolute origin of tabouret is searched before embroidering.



In working status, press  key to enter into machine operation interface. Press

 key and the system prompts “Press OK to start searching absolute origin”.

Press  key to start searching absolute origin. Then it is moved to embroidering position before power failure and stopped. Draw the bar and it can continue embroidering.

4.4 Embroidery Running Status

In embroidering running status, it can only take spindle lifting speed operation.

Press  key to slow or accelerate the spindle speed. Press  key to select lifting speed.

4.5 Bar Drawing Operation

After various embroidering related parameters are finished setting, it can start embroidering by pressing start key.




Stop at embroidery card status: Press the start-stop button once to turn embroidery.

In embroidery card running status: Press the start-stop button once to turn embroidery.



Part 5 Letters to Generate Embroidery Card

In the machine operation interface, press  key to enter into letter interface, as in the following Fig:




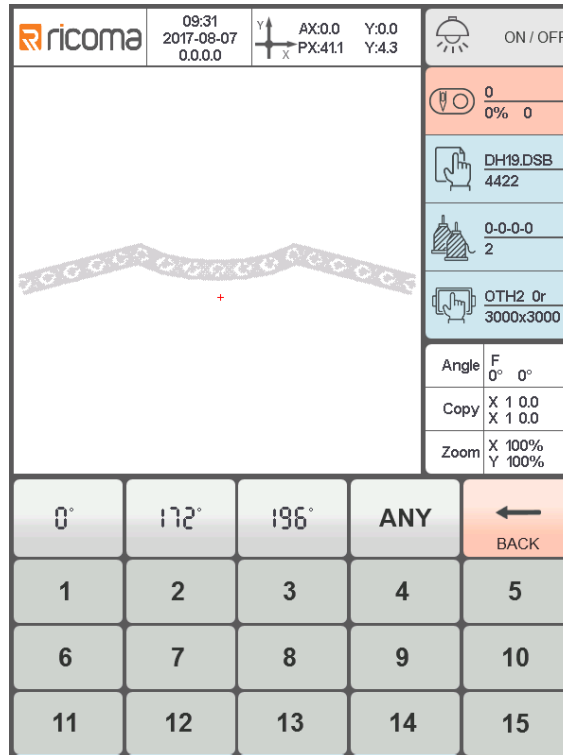
Press key to select required letters or other signs. Press  key to switch upper-case and lower-case letters. Press  key to clear letter. After entering is completed, press  key to skip to setting interface (operation cannot be continued if embroidery is not released), as in the following Fig.



Set letter related parameters. After setting is completed, press key below to select required letter type (5 types). Press  key to generate letter pattern. On the left upper corner, it can see the generated embroidery card. Press  key to save embroidery card in memory.

Part 6 Manual Operation for Color Changing

In working or preparation interface, press  key to take manual color changing operation. Figure:




The interface will pop up the figure leebboard. Press corresponding figures according to requirements to switch color to specified needle bar. It is also possible to perform jogging of the spindle.

Part 7 Manual Trimming


Either in embroidery preparation or working status, it can take trimming operation.

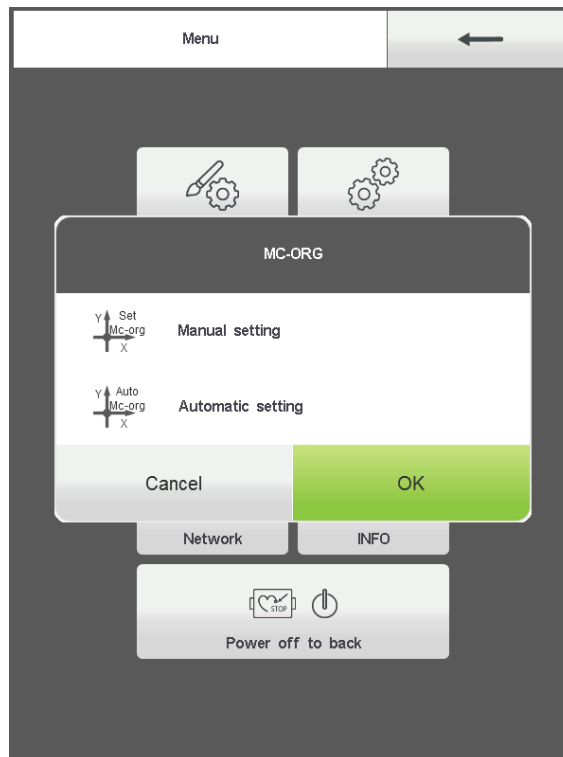


Press  key on panel to take bottom facial suture trimming operation. According to the need for related trimming operation.



Part 8 Tabouret Origin Operation

Tabouret origin operation includes manual origin setting and absolute origin searching and software limits setting.

In machine operation interface, press  key to enter into origin operation interface, as in the following Fig.



8.1 Manual Tabouret Origin Setting

In tabouret origin interface, press  key to select operation. The interface will pop up a dialogue “Set the current point as tabouret origin or not?” Press  key to complete setting. PX/PY coordinates are changed into 0.0.


8.2 Automatic Searching for Absolute Origin of Tabouret

Absolute origin is to use tabouret limits to detect absolute position of tabouret, so as to ensure using embroidery recovery in power failure to take accurate embroidery continuation

when accident appears during embroidering process.

The function is automatic searching of system. It must confirm whether the limit sensor can be used effectively or not. Otherwise, it may cause damage of mechanical part.



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



OK

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.

Part 10 Report


This function is used to view the Generate Statistics and Clear Statistics actions

Part 11 Spindle Jogging Operation

The function is only used for spindle positioning and stop. It can be operated on interfaces with leys.

Take jogging operation according to requirements.



Press  key to jog spindle to 100 degree (zero position).

When you need other angles to move, please enter the manual color change interface operation.

Part 12 Language Switching







In main menu interface, press  key to take language switching operation.

Click and select required language. The system is switched to the selected language automatically.

Language		←
中文简体	English	Español
Français	Nederlands	Português
Deutsch	Русский	Türkçe
Việt Nam	ภาษาไทย	العربية
Italiano	Czech	Polski

Part 13 Embroidery Parameters

According to different machine configuration and embroidery processing requirements, it shall modify some commonly used parameters to meet the operation requirements.

In the main menu interface, press  key to enter into embroidery parameter interface. Click parameter content to be modified, and press  or  key to take modification. After modification is completed, press  key to save modification and return to main menu interface automatically.

The definition of the embroidery parameters and the range of values are shown in Table 1.

Embroidery parameters and machine parameters can be used to export U disk backup. When you need to restore, you can use the backup parameters to import. This function can also be used for batch import recovery when the machine configuration is the same.

Part 14 Machine Parameters Setting

The parameter is only used for professional technician of assembly plant. Don't make modification without permission by other persons to avoid causing damage to the machine and abnormal operation.

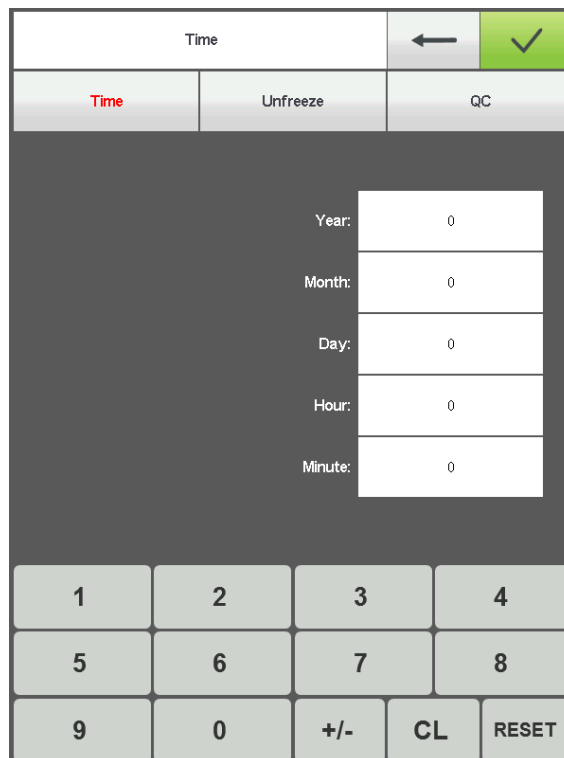
Part 15 User Management

The parameter is only used for professional technician. Don't make modification without permission by other persons to avoid causing abnormal operation of machine.

In the mune interface, press the  key to enter the operation.


15.1 Time setting

In the user management interface, press the key to enter the operation (the device can not enter the time setting during the encryption lock machine). Figure:



Time		←	✓
Time	Unfreeze	QC	
Year:	0		
Month:	0		
Day:	0		
Hour:	0		
Minute:	0		
1	2	3	4
5	6	7	8
9	0	+/-	CL
			RESET


Please inform the supplier of the encrypted serial number, provided by the supplier according to the serial number to remove the password.

According to the current time to set, after the completion of the  key to save, the time automatically updated.

15.2 Unfreeze

The machine because of restrictions on the use of expiration, the system automatically lock the machine, and prompted to enter the release limit password. Figure:

Unfreeze		←	✓
Time	Unfreeze	QC	
Lock-up time:	0 days		
Encryption Serial Number:	112233445566		
Remove Password:			
1	2	3	4
5	6	7	8
9	0	+/-	CL RESET


Press the key to enter the password obtained from the vendor to cancel. the  Key to release the limit, you can continue to use.

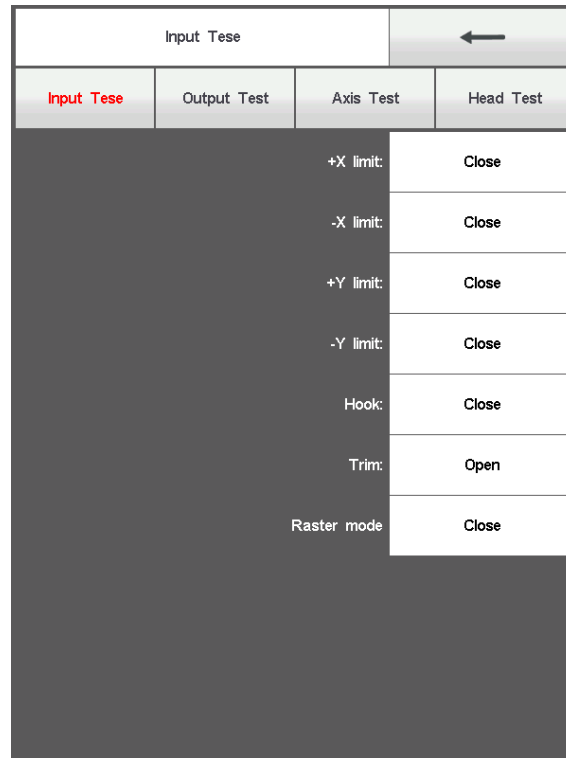
Can get the password in advance to lift.

Part 16 System Test

The operation is mainly for maintenance personnel, and is used to test whether the operation of machine is normal.




In machine operation interface, press  key to enter into test interface. Figure:

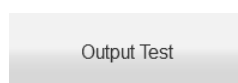


16.1 Input Test

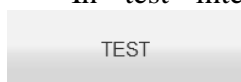


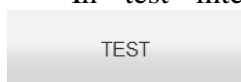
In test interface, press  key to enter into input test. Check whether each item is changed along with the variation of status changing. If it is not changed, current input signal may have fault. Please check and make maintenance.

16.2 Output Test



In test interface, press  key to enter into output test. Press



 key corresponding to every test item, check whether the output is valid. If

corresponding equipment output has no action, the current output may have fault. Please check and make maintenance.

Crocheting test: Press the key once, and the crocheting cutter is taken alternative action between stretching and reverse returning.

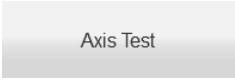

Trimming test: Press the key once, and trimming motor is taken alternative action between half circle rotation to stop and another half circle rotation on the same direction to in place.


Buckling test: Press the key once, and the buckling electromagnet is actuated for 2s and disconnected automatically.


Left tinsel test: Press the key once, and the tinsel landing chassis executes descending, output for 3 times and lifting.


Right tinsel test: Ditto

16.3 Spindle Test

In the test interface, press  key to enter into spindle test. Press  key corresponding to every test item, check whether the output is valid. If corresponding equipment output has no action, the current output may have fault. Please check and make maintenance.


XY axis test: Press Up and Down keys to modify the mobile pulse number (1-127) of motor. The default value is 12 pulses. Press  key to start back and forth movement.

Spindle test: Press  key to start rotation in speed of 100rev / min. Press Up and Down keys to modify the spindle speed and check whether the current rotation speed is consistent with actual rotation speed. (within 5 rev difference for 1000 rev).

QEP test: press  key to test spindle coder line number and zero position width. $22/1000 \pm 2$ is normal, out of range encoder failure.

16.4 Machine Head Test (Used only in organic head panels)




In the test interface, press  key to enter into machine head breakage test. Press figure button to test corresponding needle bar. Check whether breakage detection is valid. If the pre-out has fault, Please check and make maintenance.

Facial suture test: When facial suture test spring is closed, red indicator is normally on. It is changed into green when it is separated.

Bottom suture test: Toggle the test wheel. The indicator is flashing along with the toggle speed.

Select facial suture and bottom suture according to the requirements.


Part 17 System Information

In main menu interface, press  key to enter into system information interface. Figure:

INFO		←	✓
INFO	Logo Update	Interface Update	Software Update
Version	V.SR03.1705.1705		
Motherboard ID	12345678		
MAC ID	10:1F:E0:21:D8:2C		



17.1 System Number and Version Information Checking

It is used to check the code of control system.

In system information interface, press  key to check.

17.2 Logo Update

In the system information interface, insert a Logo file U disk, press the

 key to enter the U disk directory, select the need to upgrade the Logo file, press the  key to upgrade.

17.3 Interface Update

The library file used to upgrade the control system. Only for professional operations.


17.4 Software Update

The library file used to upgrade the control system. Only for professional operations.

Part 18 Network Setting

In the main menu interface, press  key to Search wireless signal, after entering the WIFI settings interface. Figure:



Select the wireless signal to be connected, press the  key to enter the access password, press the button to connect to the wireless network, connect automatically jump to the main interface, display the router assigned IP address.

 Button to re-search the wireless signal.

Part 19 Appendix

19.1 Parameter Table

Parameter Name	Parameter Function	Default	Range
	Thread break		
Break Thread Up:	Lift landing chassis or not in breakage.	Yes	Yes, No
Tread Broken Sensitivity:	Facial suture breakage detection sensitivity	5	3-9 stitches, No
Bottom T.B detective	Bottom line disconnection detection sensitivity	normal	High normal low, No
Auto Back When T.B.:	Automatic backing stitches after breakage. Breakage machine head shall compensate embroidery in advance	4	0-9
Line broken tips	The sound of the system prompts after disconnection	Close	On、 Close
	Trimming		
Jump to Trim:	Start trimming or not trimming when there are several skipping stitches.	3	1-9, No trim
Trim Top Thread Length:	Lock stitch shall be large when embroidering thin material	0.6mm	0.5-1.0mm
Length After Trim:	Facial suture length after trimming. The larger the figure is, the longer the residual is.	5	1-7
L.S Times while Trim:	Lock several stitches in trimming to prevent off-line of embroidery after trimming.	1	1-3
L.S Number after Trim:	Lock several stitches after trimming to prevent off-line.	1	1-3
Moving Frame After Trim	Move tabouret or not after trimming.	No	Yes, No

Hook Motor Speed:	Crocheting stepper motor speed adjustment. The larger the value is, the faster the speed is.	5*	1-5
Trim Function;	Use trimming function or not	Yes	Yes, No
	Needle		
Needles in a Head:	Current embroidery machine used needle bar number	n*	1-15
Sequin Needle:	Tinsel embroidery uses left side, right side or both left and right side. If the tinsel function of mechanical parameters is shut off, the parameter is invalid.	Off*	Off, Left, Right, L or R
Needle Of Boring:	Stitch position using carving cutter (not take breakage detection)	0	0-n
Needle Of Cord:	Stitch position using rope embroidery (automatic deceleration)	Close *	Close Left, Right
Automatic start for the same color	Whether it is started automatically when continuous 2 color changing settings are for the same needle bar	Yes	Yes, No
Needle Of Bead:	Bead embroidery using the left, right or off the bead function	Close *	Close Left, Right
	Speed		
Main Axis Max Speed:	Max rotation speed setting of spindle (limited by mechanical parameters)	750	550-1200
Main Axis Start Speed:	Spindle rotation speed at starting	100	60-200
Speed Down at Jump:	Decelerated current speed in continuous skipping	80%	60%-90%
Sequin Max Speed:	Max rotation speed in tinsel embroidery	700	300-1000
Piece Speed:	Lifting stepper motor speed adjustment. The greater the value is, the faster it is.	3*	1-4
Max Speed Of Cord:	Max rotation speed in rope embroidery	300	300-1000

Max Frame Move Speed	Set high tabouret moving speed. The greater the value is, the faster it is.	5	1-9
Color Change Motor Speed	Color changing speed when using stepper motor for color changing	5	0-9
Low speed embroidery rotation speed	Low embroidering speed limit set for color changing	500	450-800
Cord lift speed	Adjust lift stepper motor speed	3*	1-5
	Other		
Long Sti. EMB Mode:	Large stitch used embroidering method	Slow speed	Slow speed, jumping
Auto Jump Stitches:	When large stitch embroidery is skipping, what's the stitch to be divided into two stitches to take embroidering	6.5mm	6.5-8.5mm
Auto Speed Down ST:	What's the stitch to take deceleration embroidering	2.0mm	2.0-9.0mm
Stitches Value:	What's the number of stitches to take stitch variation adjustment	20*	5-20
Auto origin position setting	Set as "Yes" when taking embroidery card head and tail continuous embroidering	Yes	Yes, No
Auto Back to origin position	Return to start point or not after embroidery card embroidering is completed. Set as "No" when taking embroidery card head and tail continuous embroidering	Yes	Yes, No
Repeat Embroidery:	Continue embroidering or not after embroidery card is completed	No	Yes, No
Back Steps of L.S:	Start automatic backing stitching after several slow movement when drawing needle bar	0	0-9
Filter 0 Stitch Data:	Filter 0 stitch trace or not n embroidering	Yes	Yes, No
Reset Frame:	Search absolute origin of tabouret for every time of powering on	No	Yes, No

Main Axis Brake Delay:	The larger the value is, the earlier the stop position angle is	8*	1-20
Lifting Arm:	Tinsel landing chassis using method	Motor	Motor, Voltage
Left Sequin Size:	Left tinsel output size	3*	3-9
Right Sequin Size:	Right tinsel output size	3*	3-9
Stop Frame of Moving:	Allow drawing bar stop or not when beyond the tabouret	Yes	Yes, No
Return offset automatically	Deliver to highest position of tabouret automatically or not after embroidery is completed.	No	Yes, No
Start slow motion stitches	At the start, the slow movement of a few hands began to accelerate	0	0-5
Cording shelf type	Rope embroidery device shelf factory model	JY	JY、GJ、RKM
Cording lifting methods	The way the rope is raised and raised	Motor	Motor, Voltage
Cording swing amplitude	Swing motor swing amplitude	20	0-20
Cording slack adjuster	The greater the number of wobbles of the feed motor, the greater the value	0	0-9

n* Embroidery machine using needle bar number (no default value)

-* Set according to requirements (no default value)

19. 2 System Errors and Countermeasures List

Errors	Fault Causes	Countermeasures
Spindle is not at 100 degree	Spindle is not stopped at 100 degree	Jogging or manually rotated spindle to 100 degree
Spindle is not rotated	1.Spindle controller has no signal or power input	1.Check spindle controller or power wire 2.Check spindle motor input power

	<p>2. Spindle motor has no signal or power input</p> <p>3.Controller or spindle motor damage</p> <p>4.Encoder is not connected</p>	<p>3.Replace controller or motor</p> <p>4.Connect encoder properly</p>
Reverse rotation of spindle	1.Reverse connection or encoder A/B	1.Adjust phase wire of encoder A/B
Over time for color changing	<p>1.Color changing motor does not rotate</p> <p>2.Mechanical part seizing of color changing</p> <p>3.Wiring cable fault from color changing motor to power panel</p>	<p>1.Check color changing machine or connection cable</p> <p>2. Repair or replace seized mechanical part</p> <p>3. Check or replace connection cable</p>
No stitch	<p>1.stict detection sensing wheel position error</p> <p>2. Stitch detection board damage</p>	<p>1.Adjust stitch sensing wheel position</p> <p>2. Replace detection board</p>
XY motor driver error	<p>1.Over-voltage or over current protection of driver</p> <p>2. Drive damage</p>	<p>1.Check driver input power and re-powering on</p> <p>2.Replace driver</p>
Trimming is not in position	<p>1.Approaching switch detection is not in place l</p> <p>2. Approaching switch damage</p>	<p>1.Manual adjustment for trimming connecting rod to in place</p> <p>2. Replace approaching switch</p>
Tinsel needle error	Tinsel needle bar setting error	Re-set color changing sequences
+X limit error	+X direction limit	Manually moving tabouret on contrary direction
-X limit error	-X direction limit	Manually moving tabouret on contrary direction
+Y limit error	+Y direction limit	Manually moving tabouret on contrary direction
-Y limit error	-Y direction limit	Manually moving tabouret on contrary

		direction



THINK BEYOND
www.ricoma.com

Ricoma Headquarters in USA
Ricoma International Corporation
11555 NW 124 Street, Miami, FL 33178
TEL: [305] 418-4421 | FAX:[305] 418-5036
Toll Free: 1-888-292-6282
Website:www.ricoma.us | Email:info@ricoma.us

Ricoma Factory in China
Ricoma [Shenzhen]Co.,Ltd.
Baochangli Industrial Park,Jinlong Road 3.
Shenzhen,P.R.China [Post:518118]
TEL:+86-755-2585-7576 | FAX:+86-755-2585-7773
Website:www.ricoma.cn | Email:info@ricoma.cn