RICOMA®
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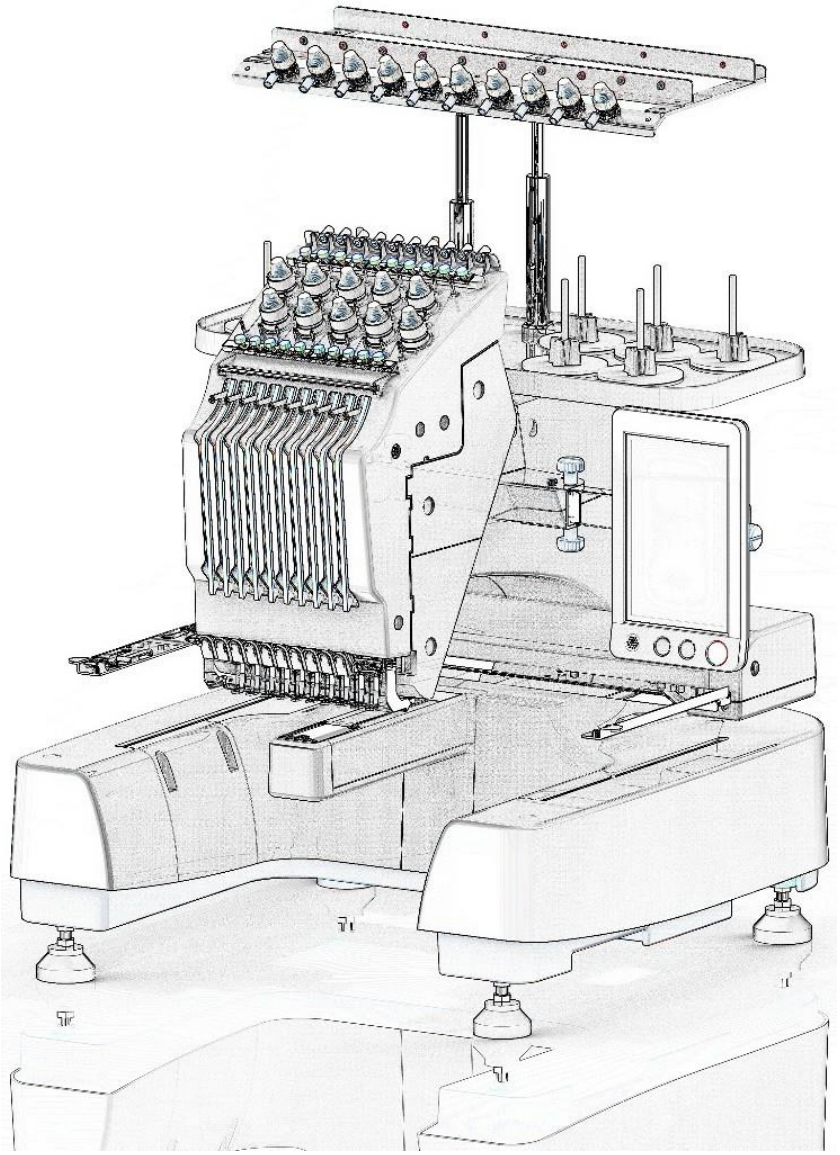
EM-1010
Operation Manual



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5.When thread is led through thread distribution plate 1 as shown below, ensure thread bypass thread distribution plate from right to the left, then through position 1 in above figure, pull thread downward and then through thread guide hole 2 as shown below 29

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Introduction

Thanks for selecting the embroidery machine and before use, please read carefully "Safety Notes" and the instructions for correct operation. The operating instruction after reading shall be properly kept for future reference.

Safety notes

Please read safety notes before using the machine.

Danger- To prevent electric shock

Make sure to pull power plug from socket before cleaning the machine after use, or maintaining the machine as specified herein, or when the machine is left unattended.

Warning- To prevent burn, fire, electric shock or personal injury

1.Before applying with lubrication oil or conducting other maintenance and adjustment operation specified herein, please pull power plug from socket.

- To pull out power plug, turn main switch to "O", and pull power plug out from socket. Do not pull power lines.
- Be sure power plug is directly inserted in power socket. Do not connect power supply directly to power board.
- If power supply is cut off, be sure the machine's power plug is pulled out

2.Stop operating the machine in case power lines or plugs are damaged. The machine also cannot function normally if it was damaged during a fall or was splashed with water. Please deliver the machine to the nearest authorized agent or technical service center, and the professional would check it and conduct electrical or mechanical adjustment accordingly.

- To avoid electric shocking or fire, do not use damaged power plug or loosened power socket, and be sure to completely and reliably insert power plug in socket.
- In case of any abnormal condition during machine storage or use, such as bad smell,heat, color change or deformation, stop using machine immediately and unplug the machine.

•Handle the machine from its bottom, since handling with machine from other positions may cause damage to machine or cause the machine falling off, even personal injury.

•Handle machine with care, or otherwise your back or knees may be injured.

•Do not touch operating panel, wire pole or movable parts while handling machine, or otherwise you may be injured.

3. Keep work area clean

•Do not block any ventilation opening while operating the machine, be sure the ventilation opening is free from accumulated fluff, dust or cloth.

•Do not connect power supply to power board, and please insert power plug directly in power socket.

•Keep foreign object away from machine opening, and keep your fingers away from movable parts, such as the guide rail, or otherwise personal injury may be caused.

•Never operate the machine in the place with spray or the places storing oxygen.

•Do not operate the machine nearby heat source or iron, or otherwise the fire or electric shocking may be caused by heating machine, ignited power lines or clothes.

•Do not operate the machine nearby open fire, or otherwise the moving embroidery frame may give rise to ignited clothing being sewed.

•Do not position the machine on rough surface such as the unstable or incline table,or otherwise the machine may fall off and cause personal injury.

•Do not touch the machine or any machine part when installing or removing embroidery frame or other accessory fittings, or maintaining the machine.

4.Precautions during embroidery

•Pay special attention to machine needle, and do not use curved or damaged needle.

•Do not touch any movable part, and take special care nearby machine needle.

•During machine operation, keep your fingers away from needle bar box and any movable part nearby the box, or otherwise the personal injury may be caused.

•Before any adjustment (such as needle replacement) nearby needle, turn main switch to “O” to shut down machine.

•To prevent needle breakage, do not use damaged or incorrect needle plate.

5.Do not play the machine as a toy

•Take special care of child operating the machine or when a child is nearby.

•In the absence of custody, the embroidery machine shall not apply to child or the disabled.

•Take care of the child and stop them playing with the machine.

•The accompanying scissors or seam ripper shall be used for specified purpose and when opening is made by seam ripper, keep your hands or fingers away from the cutting direction, or otherwise the falling seam ripper would cause injury.

•Keep child away from the package plastic bag accompanied and do not leave it unattended. Prevent child from playing with plastic bag, or otherwise choking hazard would be caused.

•Never operate the machine outdoor.

6.Precautions for prolonging machine life

•Do not store the machine in a place with direct sunshine or high humidity. Do not use or store the machine close to a heater, iron, halogen lamp or other high-temperature object.

•Neutral soap or detergent may only be used for machine cleaning. Do not use the benzene, diluent and washing power that may damage machine.

•To ensure correct installation, please refer to the operating instruction when replacing or installing any module, needle or other parts.

7.Precautions for repair or adjustment

•To prevent fire, electric shock or personal injury, never try to disassemble,repair or change the machine’s function in any way.

Damaged illumination lamp shall be replaced by authorized dealer.

•In case of machine failure or necessary adjustment, please refer to the Trouble Removal Table in the operating instruction, check and adjust the machine and if failed to solve the problem, please consult with local authorized RiCOMA dealer.

For detailed product information or upgrade, please visit our websites:

www.ricoma.us
www.ricoma.cn

Take care of the operating instructions

Domestic Embroidery Machine

The equipment is not applicable for the disabled, the person (including the children) with poor sense or mentally handicapped, with insufficient experience and knowledge, unless otherwise under supervision or guidance. Take care of the child and prevent them from playing with equipment.

License agreement

RiCOMA patented product data, software and document (collectively the "Content") is provided together with the machine. The use of the contents shall mean acceptance of clauses herein. RiCOMA shall reserve the right to the contents accompanied and the copies related and in accordance with clauses herein, you ("User") are authorized with the right relating to contents (not sale).

"User" is authorized with the following rights:

- To complete embroidery on embroidery machine in accordance with the "Contents".
- Use the "Contents" on the embroidery machine owned or used by users, but the "Contents" shall not be used for more than one embroidery machine simultaneously, unless otherwise specified. User shall:
- Not use more than one copy of the Contents, not copy, revise, release, sub-release, sell, sub-lease or issue the Contents to others in any way, or release, lease, issue permit, lease, sell, transfer or designate medium card or Contents.
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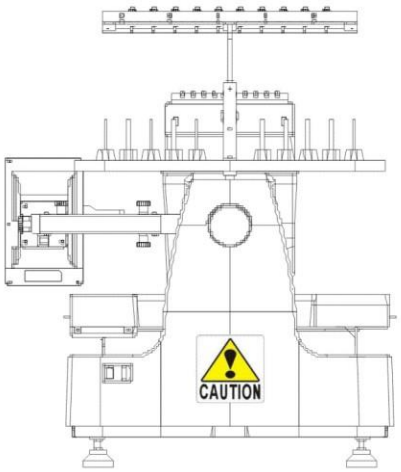
- Not change, translate, revise or use "Contents" or any part hereof for business, operation or industry purpose.
- Not sell or distribute, in any way, the embroidery made by the Contents with specific copyright statement under third party (such as "©DISNEY") other than original version RiCOMA.

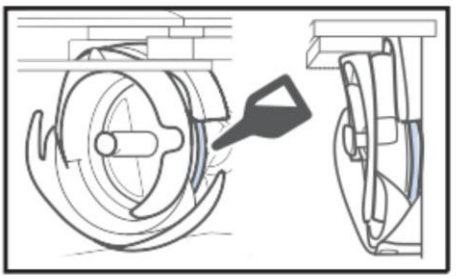
RiCOMA reserves all the rights not specifically awarded to User.
Any content herein shall not constitute RiCOMA's waiver of the rights awarded by law, and this agreement shall be governed by US laws.

Warning label

1.The machine is provided with the following warning labels, please observe precautions specified on the labels.

2.Add three drops of oil daily on rotary hook before use.

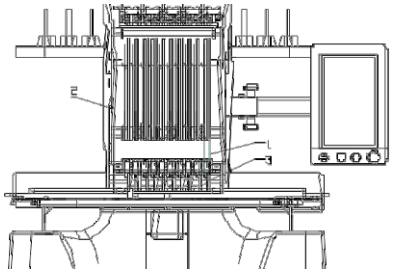




Chapter I Machine structure and functions

1.Ten-needle embroidery machine

The machine is designed with 10 needles, each specifically for embroidery thread of different color. By setting color and automatic color change for each needle bar, user may embroider the design of various colors. The device that enables needle moving upward or downward is called needle bar in needle bar box. Needle bars are named as follows from right to left: 1# needle bar, 2# needle bar, 3# needle bar, 4# needle bar, 5# needle bar, 6# needle bar, 7# needle bar, 8# needle bar, 9# needle bar, and 10# needle bar.



1: 1# needle bar
2: Needle bar frame
3: 1# needle

Manually designate need bar easily with manual thread color list, and user may designate needle bar according to thread color number by creating Menu on the basis of thread color and needle bar.

Remark

It is unnecessary to embroider according to the needle bar number sequence.

Not all of ten needle bars are for simultaneous embroidery.

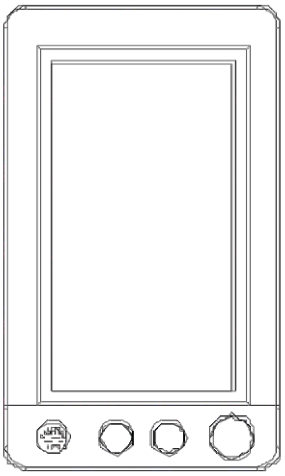
User may move only one needle to embroidery position. Needle bar frame would move laterally according to embroidery sequence, and the needle bar with required color and thread color would move to current embroidery position.

Presser foot would be automatically lowered when machine is operating. During embroidery, the thread will be automatically cut after one thread color embroidery on cloth is finished, and automatically move to the needle position for embroidery.

2.Other functions

LCD that can be easily read and used

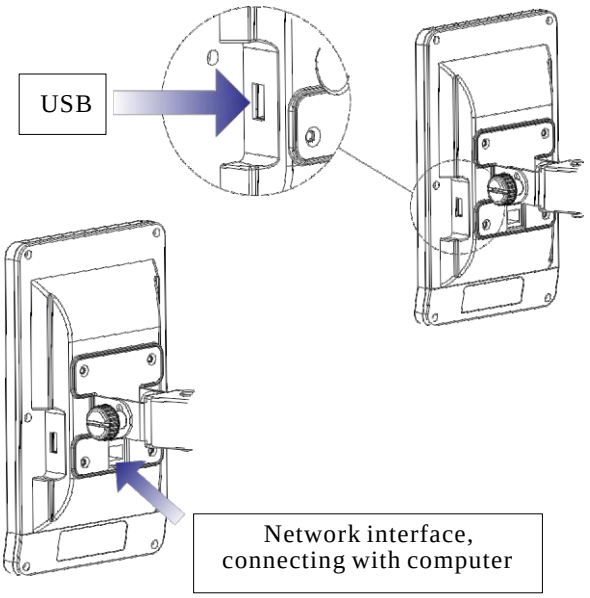
The machine, which is equipped with ultra-size colored LCD, enables preview of embroidery color. Besides, user may easily operate the machine by touching buttons on the touch panel.



USB port as standard Configuration

User may transmit embroidery designs from computer to embroidery machines by connecting the Ethernet network cable.

If the distance between machine and computer is longer than network cable, user may temporarily save embroidery designs in computer in USB media and then transfer them to the embroidery machine.

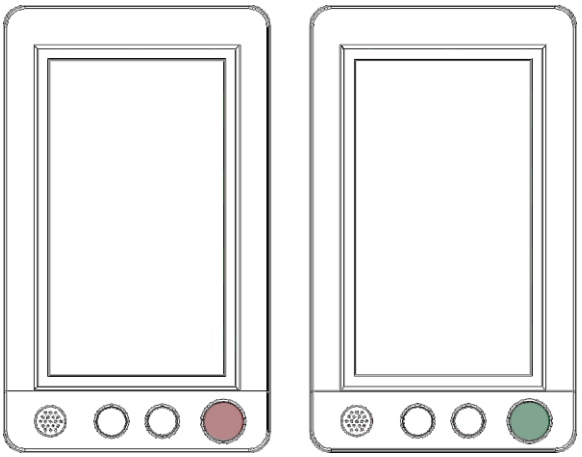


Move needle bar at any time or thread the selected needle bar

When the design is selected, edited or embroidered, user may randomly thread any needle bar or move needle bar to current embroidery position.

Safety device

The machine is equipped with a locking feature to prevent personal injury caused by accidental operation. Machine can be started only when it is unlocked. Start/Stop button color would change to show user if the machine is locked.



Functions available

Maximum embroidery area: 310mm X 210mm. If the cap frame is selected, user may embroider design on caps. Multiple accessories are available. The machine is accompanied with 4 embroidery frames and one cap drive system.

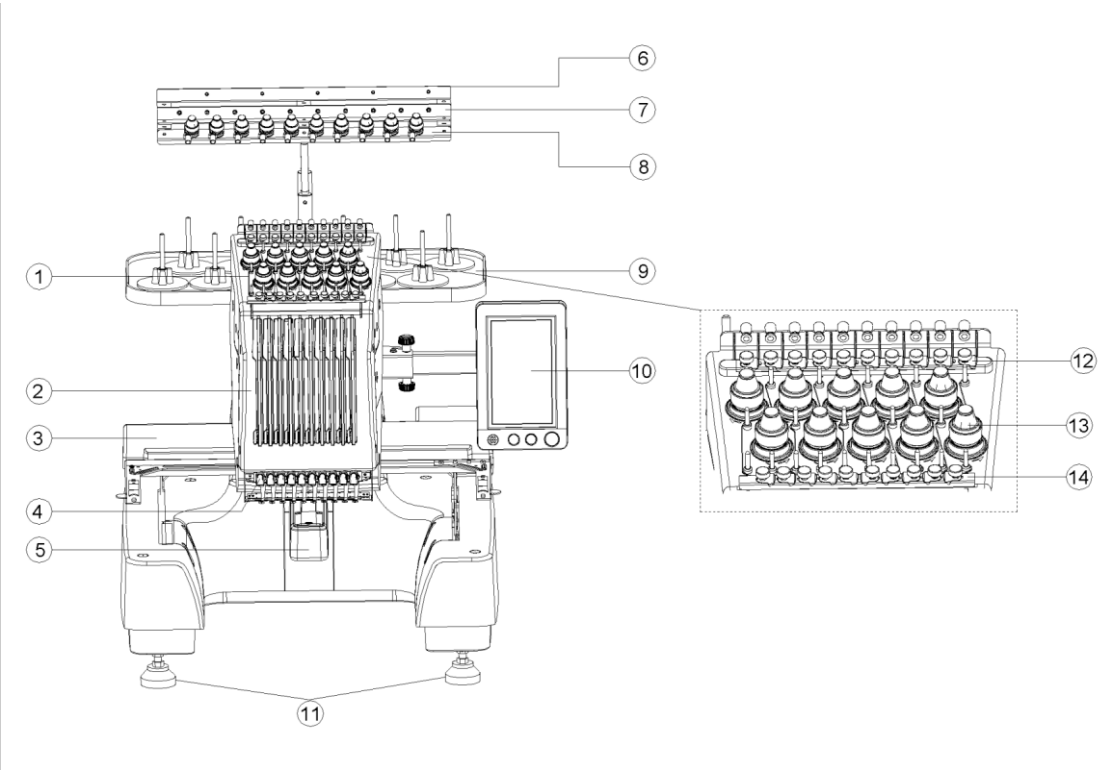
Multiple built-in designs

The machine comes with 5 pre-installed fonts.

Chapter II Machine part name and corresponding functions

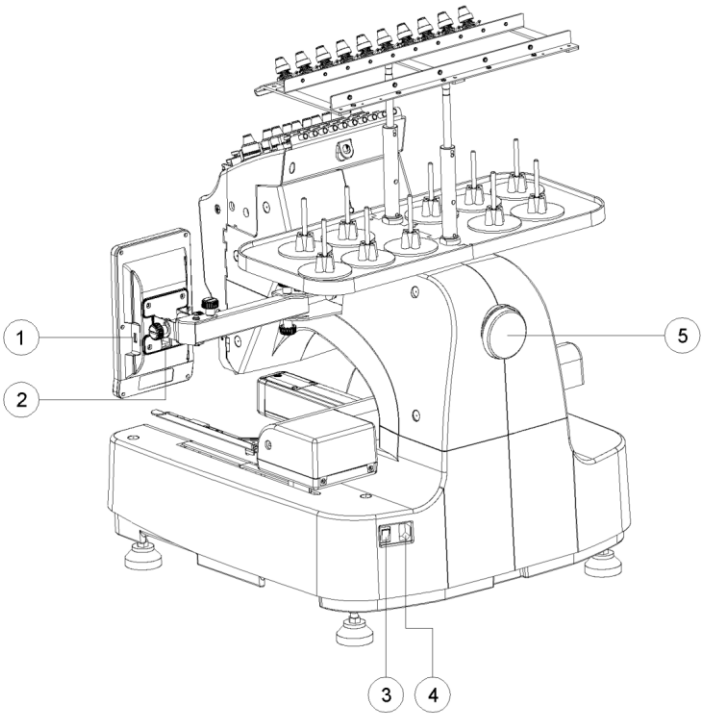
The name and functions of embroidery machine parts are provided below. Before using embroidery machine, please read carefully instructions to know embroidery machine parts.

Front view



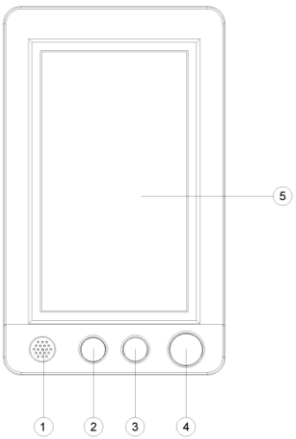
No.	Name	Functional description
1	Threading mechanism	Guide top thread, adjust thread tension and detect thread breakage
2	Needle bar frame	Needle bar frame moves horizontally and move needle to embroidery position
3	Guide rail	Install embroidery frame onto guide rail and when machine is powered on or starts embroidery, guide rail would move forward,backward, in the left or right.
4	Lower threading mechanism	Guide top thread
5	Hook case cover	Open hook case cover and insert bobbin case into hook.
6	Thread guide trough A	
7	Thread guide trough B	
8	Thread guide trough C	
9	Thread base	Accommodate 10 thread cones
10	Operation panel	For machine operation
11	Foot cup	User may regulate machine height and stability by adjusting the screw on anchor
12	Upper thread pressing piece	
13	Tension knob	Regulate the tension of top thread
14	Lower thread pressing piece	

Right/rear view



No.	Name	Functional description
1	USB port	Able to input or output embroidery design vis USB by directly inserting USB media into USB port
2	Network port	Support embroidery design transmission after multiple units are connected with computer
3	Power switch	Able to turn off/on the machine by controlling main power source
4	Power socket	Insert power plug into power socket, the power switch is internally provided with fuse.
5	Hand Wheel	The needle may move upward and downward after the knob is rotated. Please rotate hand wheel in clockwise.

Operation panel



No.	Name	Functional description
1	Speaker	It provides sound prompt when embroidery operation is over or thread breaks.
2	Dot key	Shaft would turn to 100° position
3	Thread-trimming key	Manually trim thread button
4	Start/stop key	Red light on: ready
		Green light on: normal operation
		Red light flashing: thread breakage or no bottom thread
5	LCD touch screen	Machine operation and display

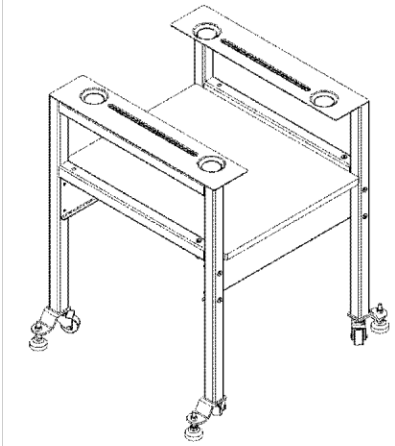
Chapter III Accessories

The following accessories are provided. Please only use the accessories specifically designed for the machine. After unpacking, please find the following accessories. If anything is missing or damaged, please contact your RiCOMA dealer.

	1	2	3	4	5	6	7	8	9
Name	Accessory box	Cap driver	Cap hooper	Tubular frame 70X50	Tubular frame 110X110	Tubular frame 190X140	Tubular frame 210X310	Thread base	Tubular frame support
QTY	1PC	1PC	1PC	1PC	1PC	1PC	1PC	1PC	1PC

Chapter IV Optional accessories

The following optional parts do not serve as standard configuration, and additional purchase shall be made if necessary.

	Name	Table and stand
	Model	ST-10

Chapter V Machine installation

Machine installation procedures are described below. If the machine is not correctly installed, shaking or noise could occur and design patterns cannot be correctly embroidered.

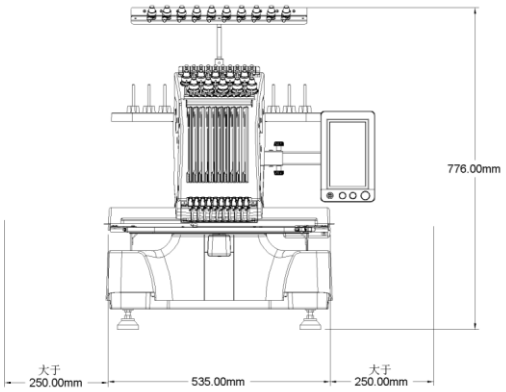
Precautions for installation and transportation

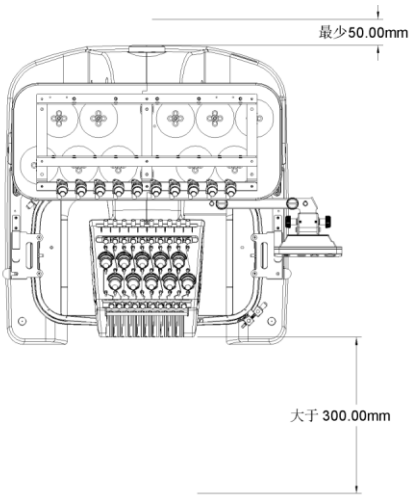
Operating environment temperature shall be 5°C (40°F) to 40°C (104°F), and machine operating in extremely cold or hot environment would cause issues.
To prevent machine malfunction, do not operate machine under direct sunlight.
Install machine in a balanced and level state by keeping four regulating anchors completely on working table or platform.
To prevent fire caused by overheating or any damage caused to the machine, do not place any object beneath the machine to block ventilation opening of the machine.
The machine weighs about 45kg, and the transportation or installation of the embroidery machine shall be performed by two people.
Ensure two people raise the machine from the groove (1) in the bottom of machine, to prevent personal injury.
Potential machine damage could be caused by raising the machine from other positions.
To prevent machine malfunction, please shut down the machine and unplug power lines in case of lightning.
Before installation, do not insert power lines, or potential personal injury could be caused by accidentally pressing on the Start/Stop button.
To prevent lubricating oil or grease from falling into eyes or spraying onto the skin, please wear protective glasses and gloves while adding lubricating oil.
Do not swallow lubricating oil or grease, and keep children away from lubricating oil or grease.
Be careful of body parts when installing or removing the embroidery frame or other accessories or during machine maintenance.

Installation position

Please install machine at a place compliant with the following requirements:

- •Machine shall be positioned at least 50mm (2 inches) away from wall.
- •Sufficient space shall be reserved around the machine.
- •Do not place any object within the movement range of embroidery frame.
- •Install the machine near a power outlet.
- •Flat and stable table such as the desk or types of support shall be used.
- •Select a table that can support the machine weight ,which is about 45kg.
- •Sufficient space shall be reserved around ventilation hole behind and below the machine.



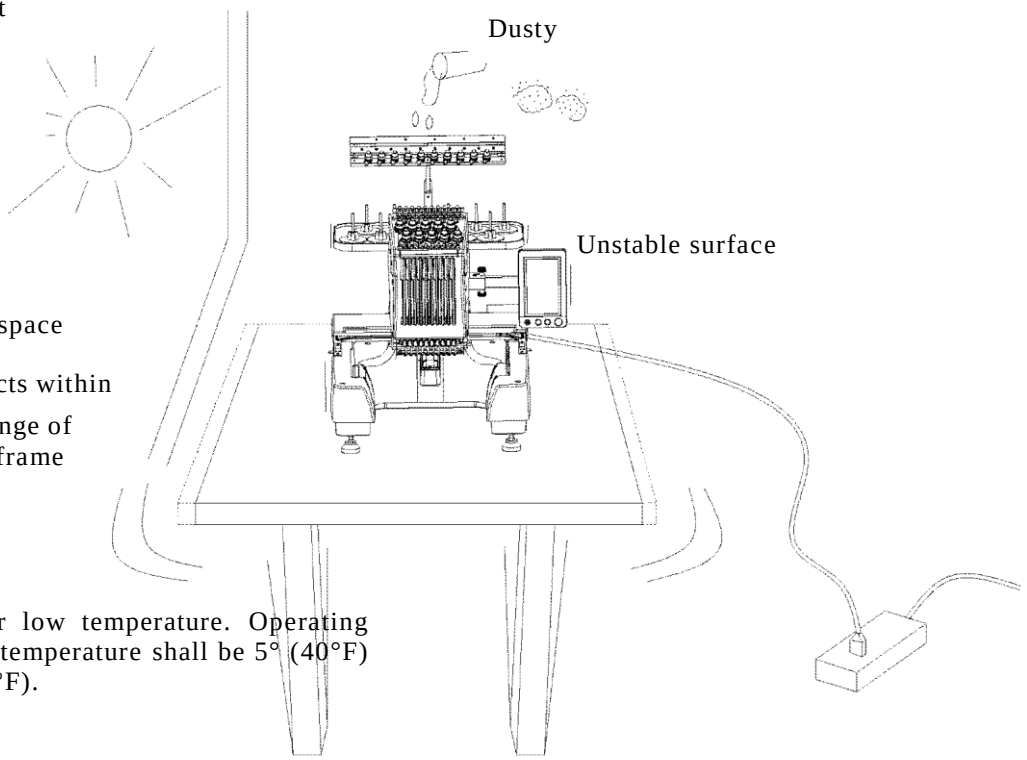


To prevent malfunction or damage, do not install the machine under the following conditions.

Liquid such as water

Direct sunlight

Dusty



Unstable surface

Insufficient space

Close to objects within movement range of embroidery frame

Ultra-high or low temperature. Operating environment temperature shall be 5° (40°F) to 40°C (104°F).

Notes:

For safety purpose: the machine weighs about 45kg, do not install the machine on an unstable working table or platform.

Machine installation

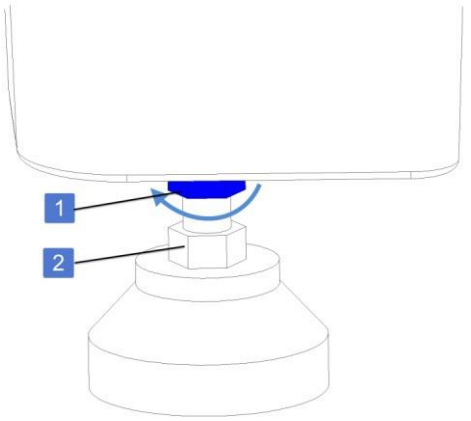
During installation, keep the machine stable by adjusting four anchors.

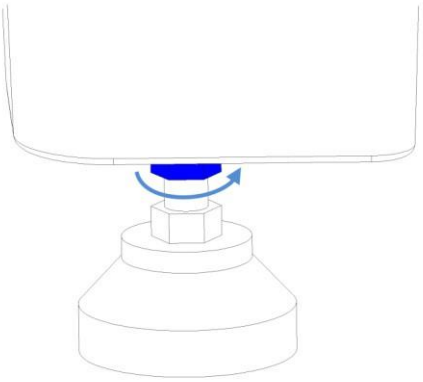
1.Ensure all protection films on the machine and all packing materials have been removed.

2.Leave sufficient space for machine installation.

3.Keep machine stable by adjusting the four anchors.

Adjust the screw on the anchor with a wrench.





1.Lock nut
2.Adjusting nut
Note: Extend or shorten anchor with adjusting nut. User may extend or shorten anchor by respectively rotating adjusting screw left or right.

3.After adjusting anchor to required length, tighten the locking nut with spanner.
Press corners of embroidery machine to ensure it has been steadily positioned.

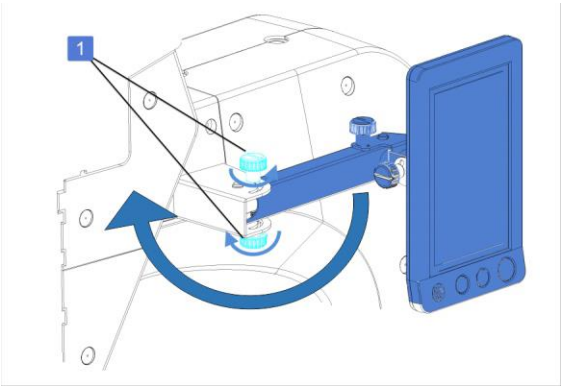
4.Adjustment of the position of operation panel

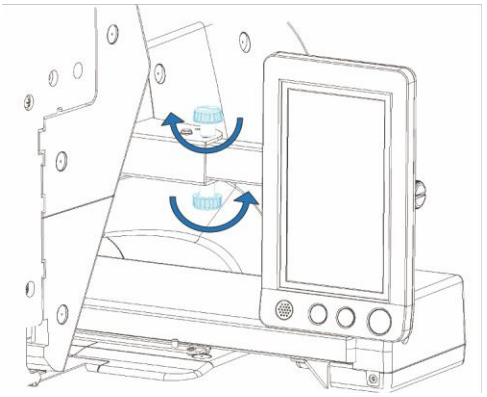
To facilitate operation, adjust the direction and angle of operation panel.

1. Manual screw

Loosen two manual screws to keep operation head forward.

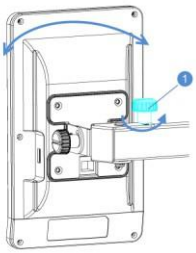
After control panel is adjusted to a position for easy operation, tighten two manual screws.





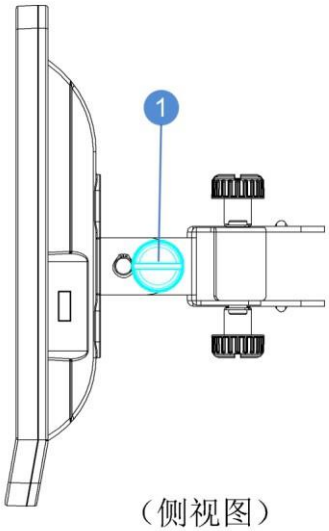
5.Adjust the direction of control panel

Loosen manual screw, adjust control panel to a position for easy operation, and tighten manual screw.

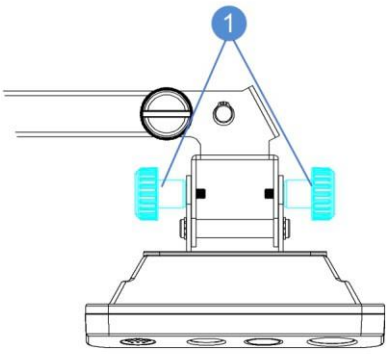


1：Manual screw

Adjust the angle of operation panel Loosen 2 manual screws in the rear of control panel, adjust to an angle for easy check, and then tighten manual screw.



（侧视图）

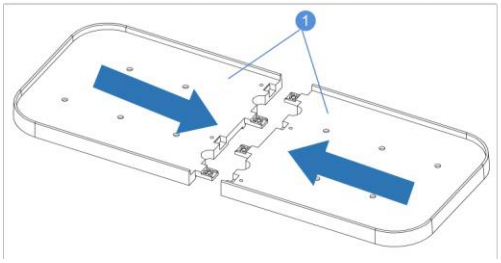


（顶视图）

1: Manual screw

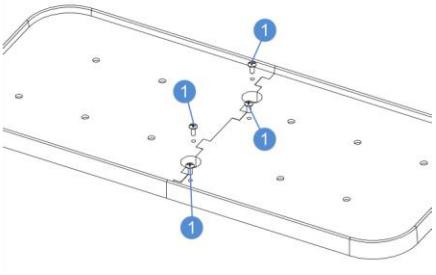
6.Assemble thread rack & base

1.Take the thread base and combine them in place according to the arrow shown below.



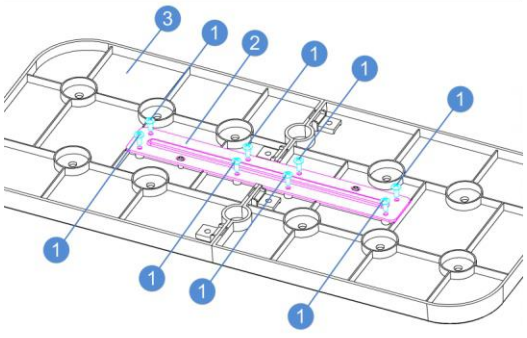
1：Thread base

2.Tighten thread base with four M4x8 screws.



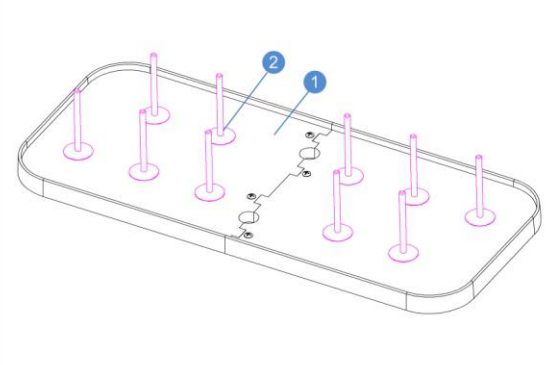
M4x8 screws

3.Select thread base reinforcing plate #2, connect the plate with thread base with 8 M4x8 screws and tighten screws.



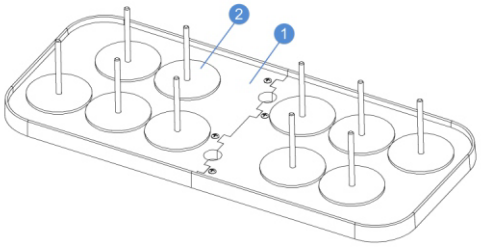
1.M4x8 screw
2.Thread base reinforcing plate
3.Thread base

4.Select 10 bobbin columns 2 and install them on the following positions.



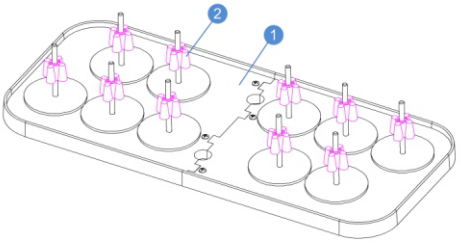
1.Thread base
2.Cone nail

5.Take 10 cone mats #2 and put them on thread nails.



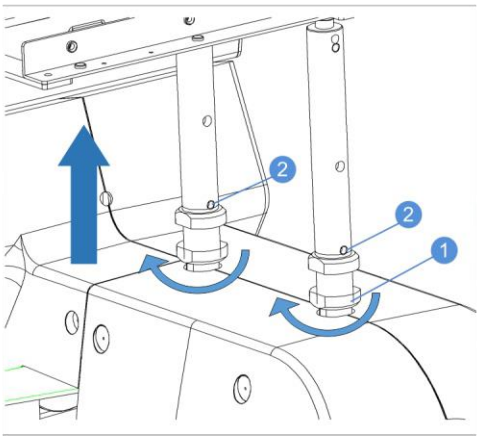
1.Thread base
2.Cone mat

6.Take and put 10 cone mats on thread nails at the central position properly.



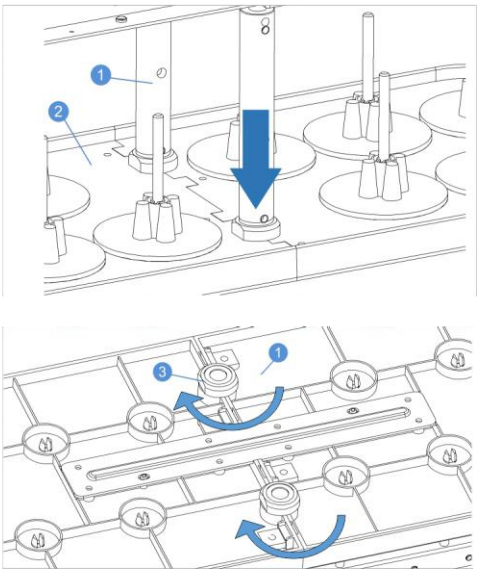
1.Thread base
2.Cone sleeve

7.Loosen two screws 2 on thread rack guide tube with Allen wrench, pull out thread rack guide tube upward to separate it from machine, and unscrew locking nut 1 from guide tube (unscrew two locking nuts from guide tube).



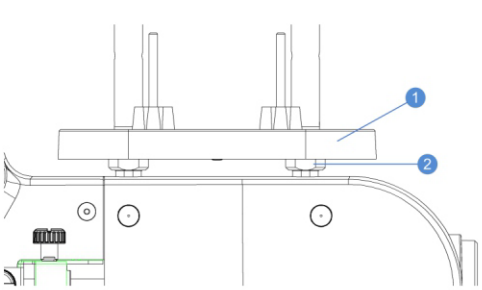
1.Locking nut on guide tube
2.Screw on guide tube

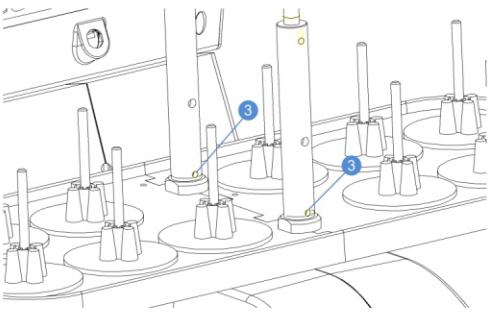
8.Install thread rack module on thread base, and lock it with guide tube nut 3.



1.Thread rack module and guide tube
2.Thread base
3.Nut on guide tube

9.Install assembled thread rack and thread base module on two positioning dowels on the machine, and tighten nut 2 with hex wrench.

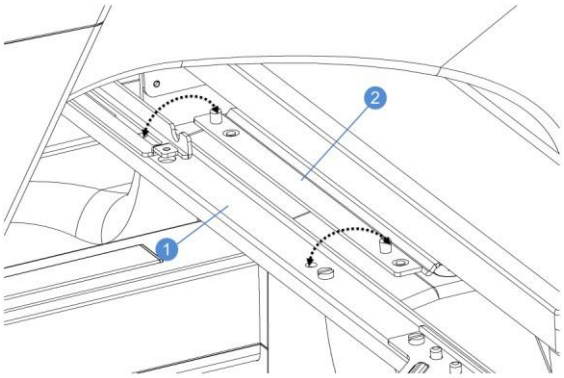




1.Thread base 2.Positioning dowel 3.Screw

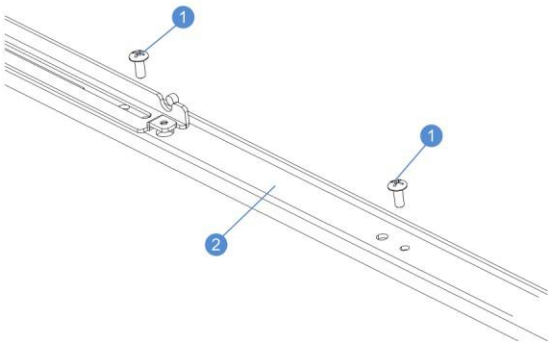
7.Install embroidery frame stand

Align the hole of embroidery frame stand with the dowel on connecting plate.



1.Embroidery frame stand
2.Embroidery frame connecting plate

Lock embroidery frame connecting plate with embroidery frame with two M4x8 screws.



1.M4x8 screw
2.Embroidery frame stand
Preparation before embroidery is finished.

Chapter VI Operation precautions

Notes for correct machine operation are described below.

1.Precautions for power supply

Please observe the following precautions for power supply.
1.AC 90~240V for the machine, and other power sources may give rise to fire, electric shock or machine damage.
2.Be sure power plugs are securely inserted into embroidery machine's power socket.
3.Do not insert power plug into poor power socket.
4.In case of the following circumstances, shut down embroidery machine and pull out power lines, or otherwise it may cause fire, electric shock or machine damage.
- •When machine is left unattended;
- •After use of machine;
- •Power failure occurs during machine operation;
- •Machine is not correctly operated, such as thread loosening or poor

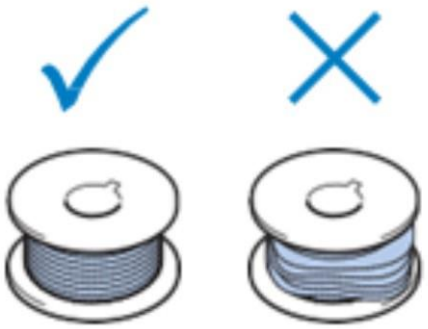
1.Only the accompanied power cords are permitted for the machine.
2.To prevent fire or electric shock, do not insert lengthening wires or multiple-plug adaptor that have been used by other electric equipment into the machine.
3.To prevent electric shock, do not insert or pull out power wires with wet hands.
4.Before pulling out power wires, shut down machine firstly, grab plug, and since pulling wires may cause damage or fire or electric shocking.
5.Do not cut, damage, reform, bend, pull, twist or bind power wires. In addition, do not place heavy object on wires or make it heat, or otherwise it may cause wire damage, fire or electric shocking. If power wires or plugs are damaged, stop using machine and deliver the machine to authorized dealer for repair.
6.To prevent fire, please pull out power wires if machine is not in use for a long time.
7.When embroidery machine is left unattended, shut down main power switch, or pull put plug from socket.
8.To repair embroidery machine or disassemble the case, cut off power supply by pulling out power plug.

2.Precautions for needle

Curved needle would be hazardous, since the needle would break during machine operation. Place the flat side of needle onto a plane to check if distance between needle and plane is even and in case of any bending or needle point breakage, please replace with a new one.
The needle 9#, 11# and 14# is recommended for the machine.

3.Precautions for cop latch

Please observe the following precautions for cop latch.
1.Use the bobbin that has been correctly wound, or otherwise the needle may be broken or the thread tension may be incorrect.
2.To wind the core, only bobbin winder shall be used.
3.Cotton bobbin thread shall be used.



Chapter VII Basic steps

Basic embroidery steps are described below. Before embroidery machine operation, please confirm the following steps.

Step	Operation	Reference page
1	Bobbin installation	Refer to page 28
2	Turning on	Refer to page 30
3	Input design	Refer to page 32
4	Select embroidery design	Refer to page 33
5	Select embroidery frame	Refer to page 33
6	Put cloth in embroidery frame	Refer to page 34
7	Install embroidery frame on the machine	Refer to page 35
8	Check embroidery area	Refer to page 36
9	Threading top thread	Refer to page 37
10	Start embroidery	Refer to page 40
11	Check thread tension	Refer to page 40
12	Remove embroidery frame and cloth	Refer to page 41
13	Turning off	Refer to page 41

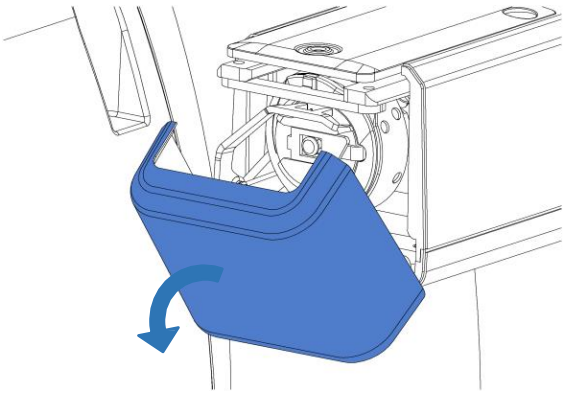
Bobbin installation

Notes: Bobbin case is installed on the hook while the machine is purchased. Please insert the bobbin for embroidery.

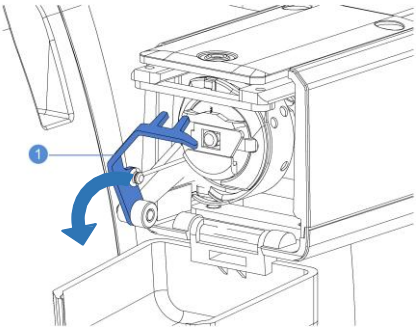
- The machine would not indicate remaining quantity of bobbin thread. Before starting embroidery, please be sure sufficient bobbin thread for embroidery design.
- Clean bobbin case while replacing the bobbin.
- Open needle plate and clean rotary hook weekly.

Removal of bobbin case

1.Open bobbin case



2.If thread hook is not forward, pull it forward

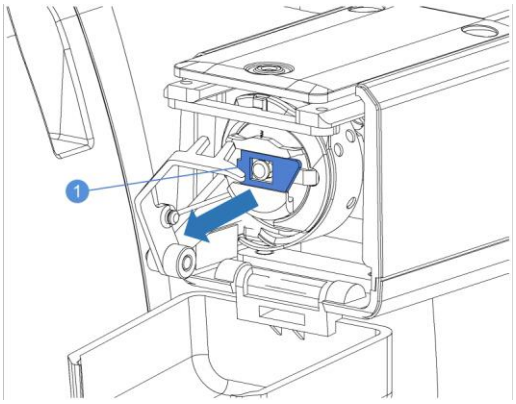


1. Thread hook

To facilitate the use of bobbin, pull thread hook forward.

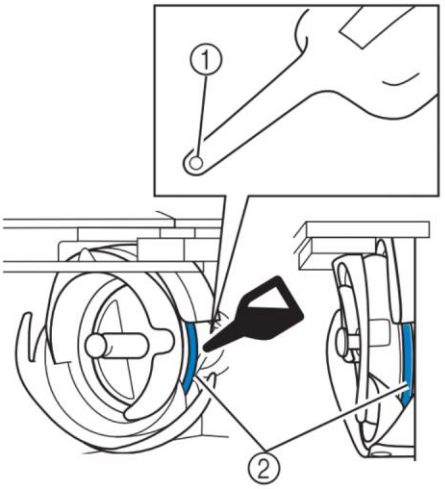
Note: Do not drag thread hook by force since it may only be rotated to a certain extent.

3.Grab bobbin case bolt, and take out bobbin case.



4.Add oil for machine

After removal of bobbin case, add oil for machine and then add oil to rotary hook.



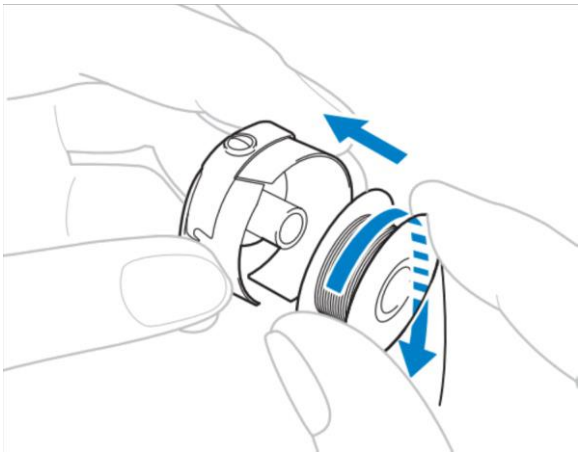
1.Open a small hole on oil pot.
2.Add oil here.

5.After adding oil, insert bobbin case into rotary hook.

Notes:Before use, add three drops of oil on rotary hook every day.

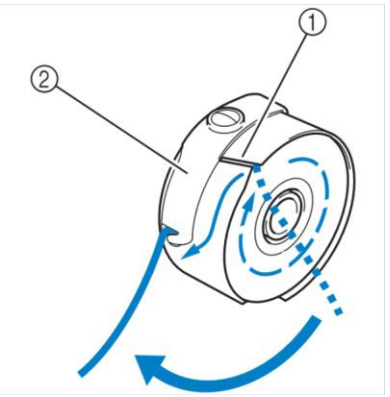
Bobbin installation

1.Put bobbin into bobbin case



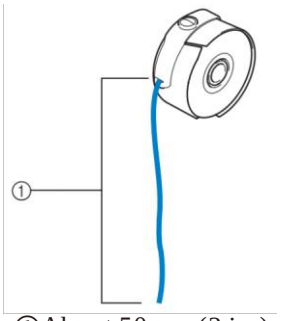
Notes:
Be sure to wind bobbin in clockwise and if not, the machine would not embroider correctly.

2.Lead thread through thread trough and tension regulating clip



①Thread trough
②Tension adjusting clip

3.Take thread out from opening of tension adjusting clip about 50mm (2 in.)

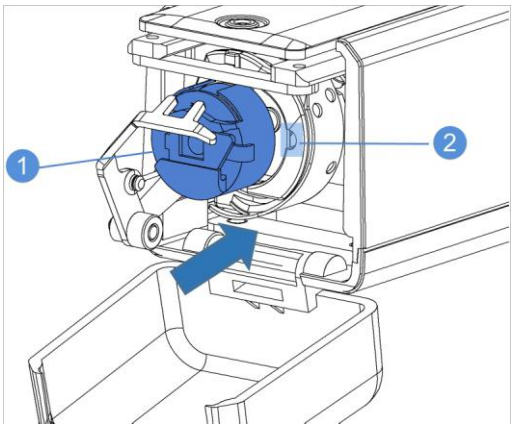


①About 50mm (2 in.)

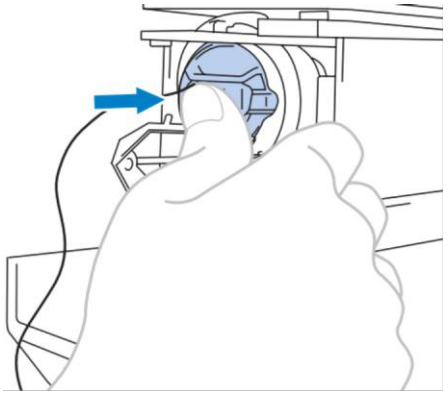
Bobbin case installation

1.Insert bobbin case in rotary hook

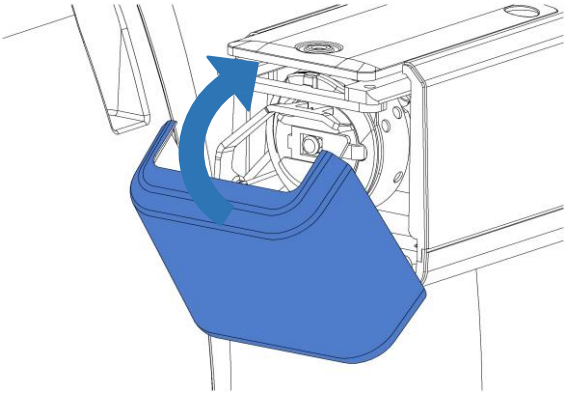
Align the protruding part of bobbin case with the grooving of rotary hook, and insert into rotary hook, as shown below.



2.Completely insert bobbin case until clamped in place



3.Close hook cover



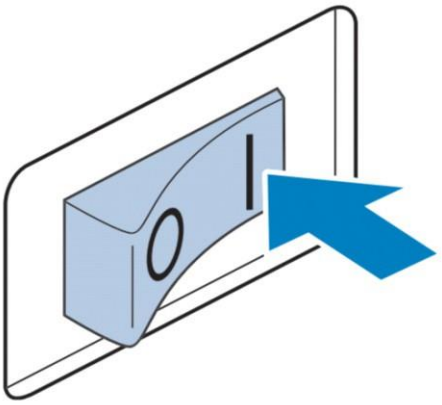
II. Turning on

Connect power wires and enable machine switch.

1.Insert power cord into machine.

2.Insert power plug into power socket.

3.Turn main power switch in the rear of machine to “I”.



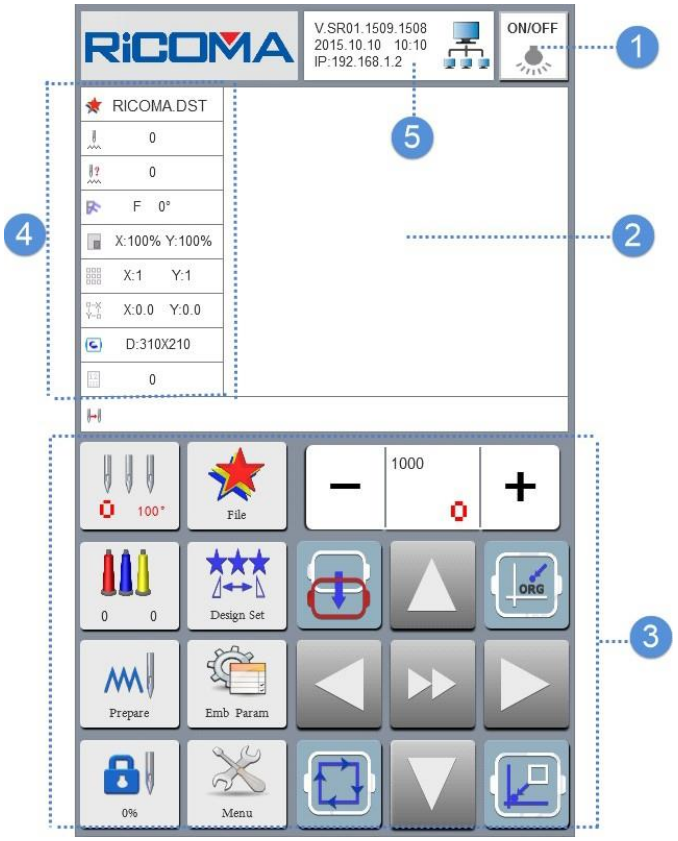
LCD display is turned on

4.When machine is turned on, needle bar rack will automatically move to the position of 5# needle bar (namely initial position).

To prevent injury, keep hands and other objects away from needle bar rack.

Operating interface description

After machine is turned on, user may proceed with the following operations by using the operation panel

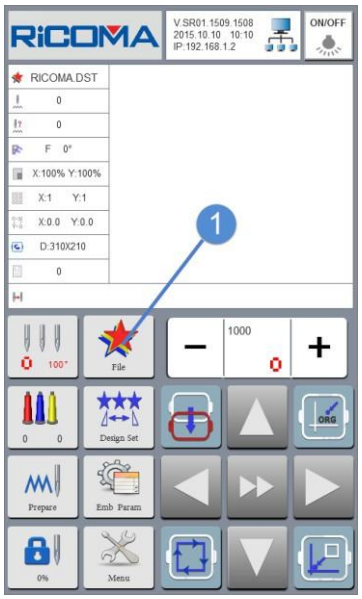


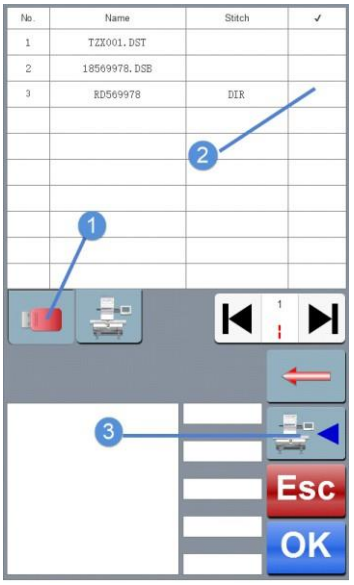
No.	Zone	Functional description	Remarks
1	LED lamp switch	LED lamp switch on/off	
2	Design preview zone	Display the design selected, preview embroidery frame movement position and embroidery progress	
3	Button function zone	General-purpose key, move frame, set machine parameter,one-key frame movement, and machine speed control, etc.	
4	Embroidery parameter display zone	Display machine parameters, such as design name, number of stitches, embroidery frame type	
5	Machine networking state	Display machine software version, date, time, machine IP address	

III. Input pattern

Basic operating procedures are as follows:

1.Insert storage media (to USB port on the side of control panel)
Enter design selection interface by touching 1, as shown below:

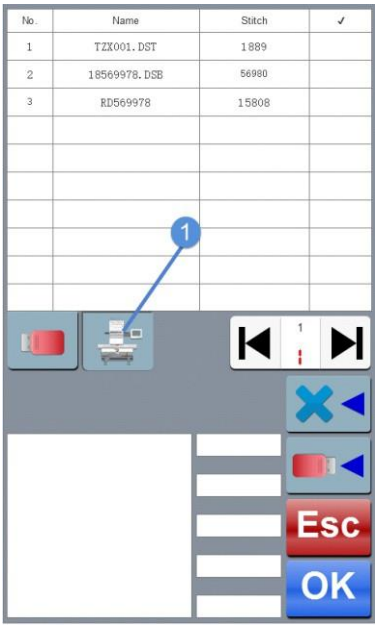




2.Access storage media list by touching 1.

3.Select design by touching 2,would ★ display behind the design selected.

4.To facilitate embroidery or manage design, copy the design selected to machine memory by touching 3.



5.Check if the file copied to machine is correct by touching 1.

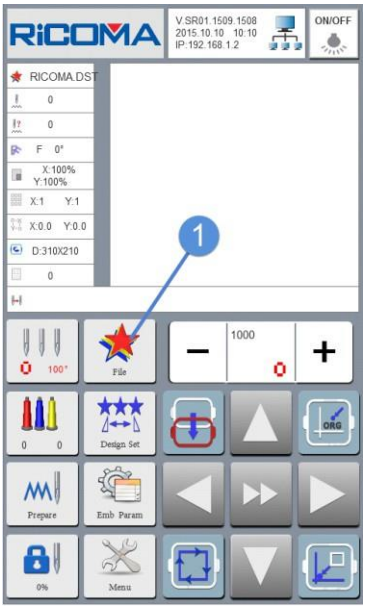
Then the design input is completed.

1.Notes:After design is copied to machine memory, select the design, and then delete it by touching .

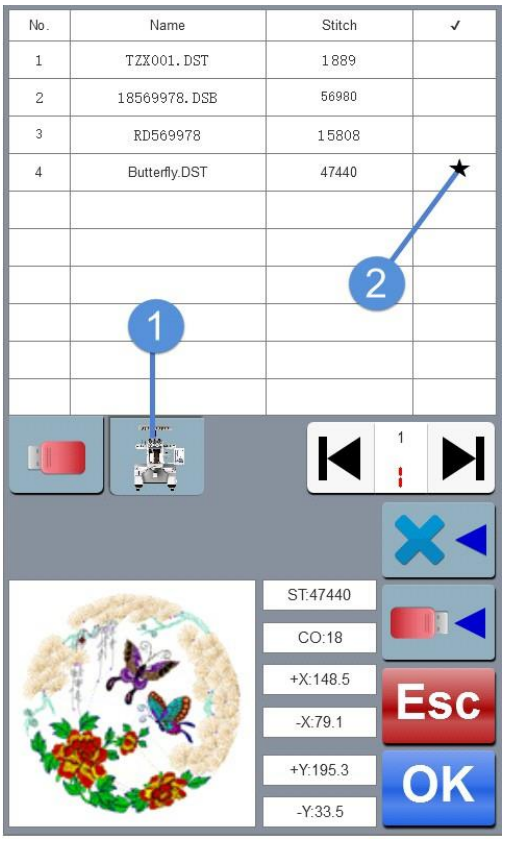
2.Turn pages by touching .

IV. Select embroidery design

For instance, we select the design shown below.



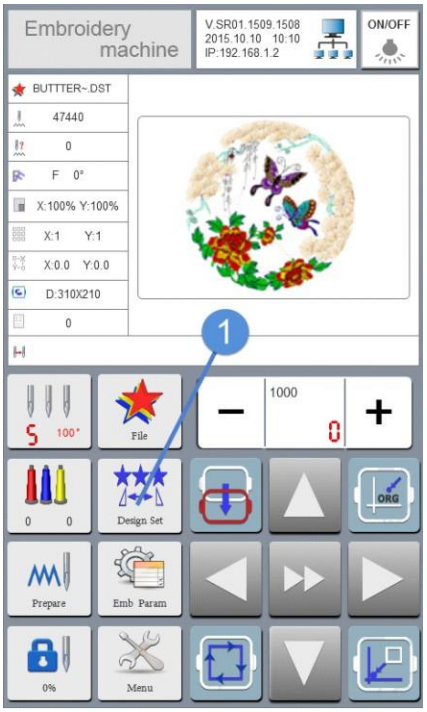
1.View the design selected by touching 1.



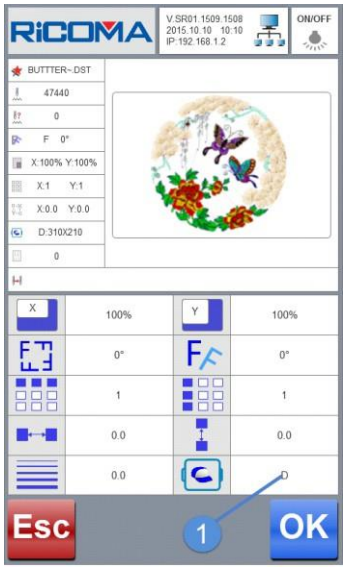
2.Select machine memory by touching 1 ,and touch 2 to select design,confirm it by clicking on OK ,then the following page will show up.

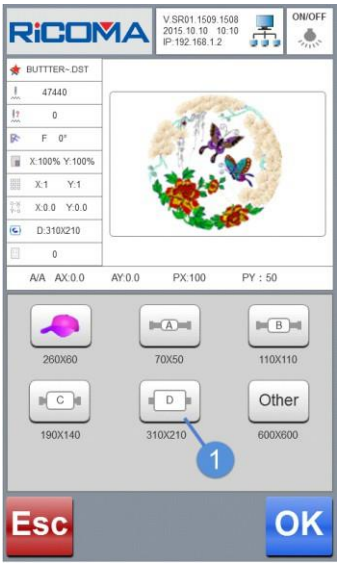
V. Select embroidery frame

After selecting embroidery design, select and confirm the embroidery frame for the design in the system.



1.Enter design setting interface by touching 1. **2.Enter frame selection screen by touching 1.**





3.Select embroidery frame D by touching 1, and click on OK for confirmation.
Four sizes of frame are available. Please select the appropriate frame according to design.

Icon		A	B	C	D	Other
Name	Cap embroidery frame	Embroidery frame A	Embroidery frame B	Embroidery frame C	Embroidery frame D	Others
Embroidery area	260X60mm	70X50mm	110X110mm	190X140mm	310X210mm	

VI. Put cloth in embroidery frame

According to the frame size selected, select the cloth and the frame included in the machine, and put the cloth in embroidery frame.

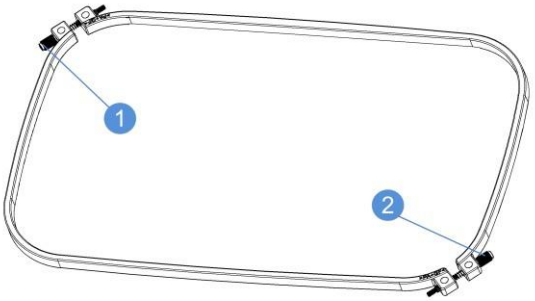
•If cloth is not tight, design would be skew and cloth would be wrinkled. Please stretch cloth in embroidery frame with the following steps. In addition, ensure the cloth on a leveled surface.

•If another frame other than the above 4 frames is used, the frame may affect presser foot and damage the machine, or cause personal injury.

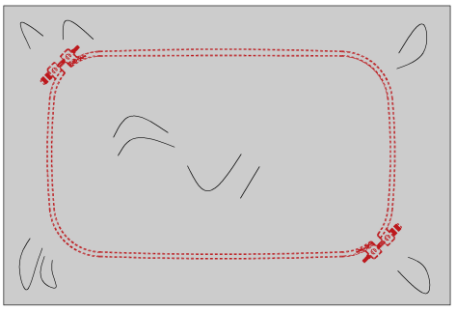
Put cloth in embroidery frame

Cloth would be clamped in embroidery frame in the following steps, and other embroidery frames may clamp cloth in the same steps.

1.Loosen screws on the outer frame



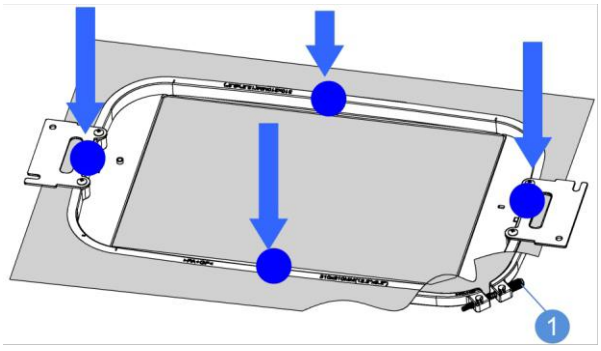
2.Put cloth on external frame with its top side upward



•Each side (regardless of the top or reverse side) of external frame can serve as the top side.

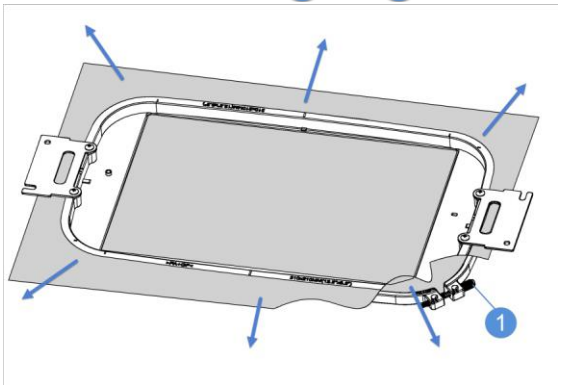
•To prevent needle track from shrinking or design skew, the cloth with reverse side attached with backing is recommended.

3.Put internal frame into external frame



•Be sure the cloth is free from wrinkle after being put into embroidery frame.

4.Tighten screw slightly, 1 Pull 1 cloth edge out.



5.Tighten screws and confirm if cloth is tight.

•After securing cloth, knock cloth slightly, a sound like that made by drum shall be heard.

•Clamp internal and external frame together to keep the bottom of internal frame slightly lower than that of external frame.

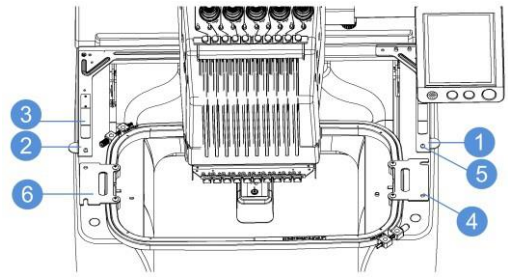
•The stretch amount of cloth and the use of backing may differ due to the type of cloth to embroidered. Please ensure the optimal embroidery effect by trying different methods.

VII. Install embroidery frame on the machine

•If embroidery frame is not correctly installed, embroidery frame may affect presser foot and damage machine, or cause personal injury.
•When embroidery frame is installed, be sure Start/Stop button shows red light. If embroidery machine accidentally starts operation, personal injury may be caused.
•After embroidery frame installation, ensure the frame would not collide with any other part of the machine.
•Before embroidery frame installation, please ensure sufficient threads in bobbin core.

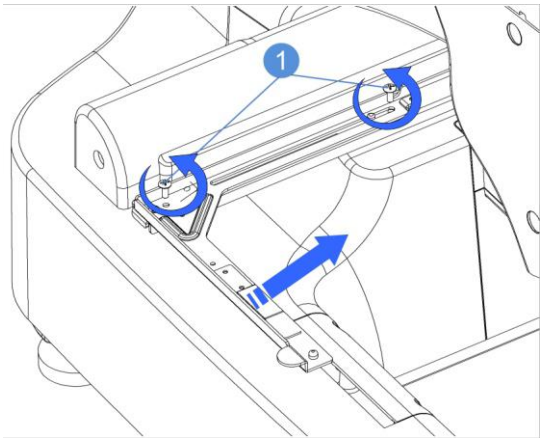
1.Embroidery frame installation

Adjust frame support to the size of frame, and install frame onto support stand, and installation steps for embroidery frame D are described below.



•Right arm of embroidery frame support
•Left arm of embroidery frame support
•Clamp of embroidery frame support
•Position hole of embroidery frame
•Position pin of embroidery frame support
•Embroidery frame

2.Loosen two screws on embroidery frame support



①screw:

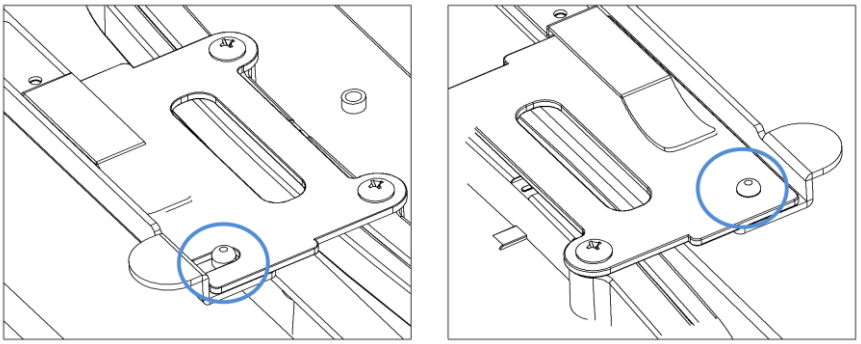
Notes:
•The left arm of embroidery frame support can move right.
•Loosen screw in counterclockwise at most 2 circles, and do not remove the screw.

3.Move left arm until obvious stagnation during sliding toward right side

Embroidery frames of four sizes are provided. If the left arm of embroidery frame is at the most left side, the position of other embroidery frame is as follows:

Embroidery frame	Position	Remarks
Embroidery frame A	Left arm of embroidery frame moves rightward to the innermost side	
Embroidery frame B	Left arm of embroidery frame moves rightward to the 3rd stuck-point	
Embroidery frame C	Left arm of embroidery frame moves rightward to the 2nd stuck-point	
Embroidery frame D	Left arm of embroidery frame moves to the most left side	

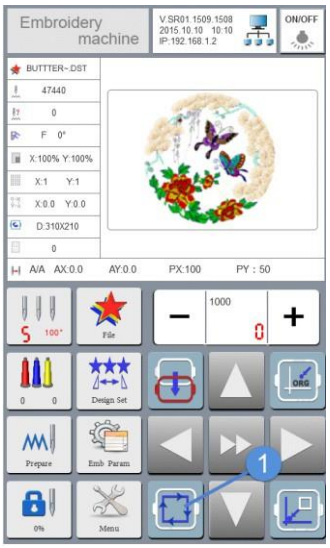
4.Grab embroidery frame horizontally, align left and right side simultaneously with the embroidery frame support clamp, move toward the machine, and keep the hole of embroidery frame on the location pin of frame stand.



Notes:
To prevent embroidery frame from colliding with needle plate, keep needle plate beneath embroidery zone while installing the embroidery frame.

VIII. Check embroidery area

Check embroidery area, be sure embroidery would be made at necessary position, free from askew, and embroidery frame not collide with presser foot. If the position of embroidery frame is incorrect, please move it to a correct position.

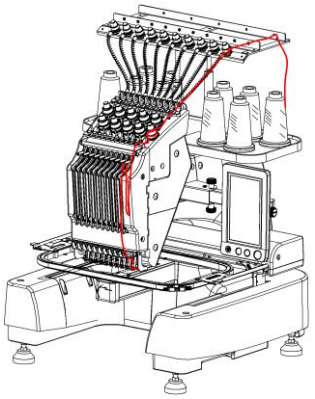


Touch one-step tracing key 1 , embroidery frame may automatically move within the maximum range of design and if the position is not correct, system will automatically correct the starting point for design embroidery and if still incorrect, will provide error prompt.

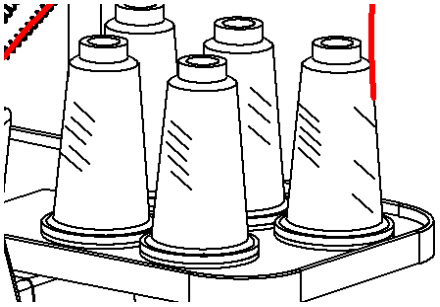
Notes:
When design exceeds the range of embroidery frame, the preview line of embroidery frame will be displayed as a red line and if within the range, displayed as a black line.

IX. Top threading

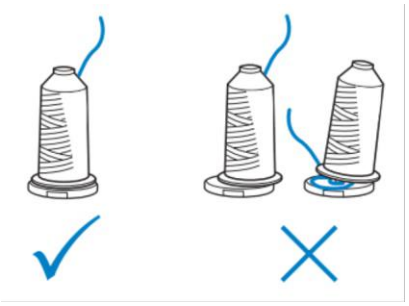
To complete top threading, please operate carefully as follows.Incorrect threading may cause thread or needle breakage. The threading route is shown as the guidance in the following figure. Please thread the machine as directed.



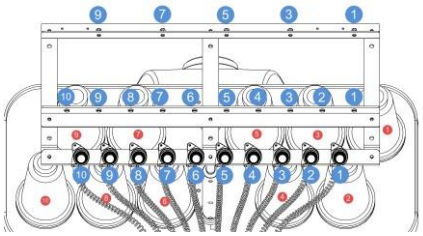
Place the thread cone of desired color on the thread base.

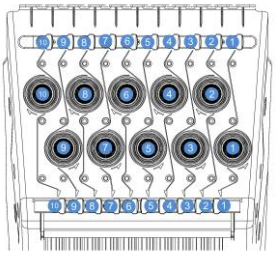


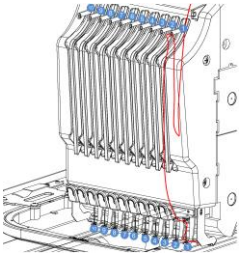
Put thread cone in the center for correct thread feeding, and prevent thread from tangling.



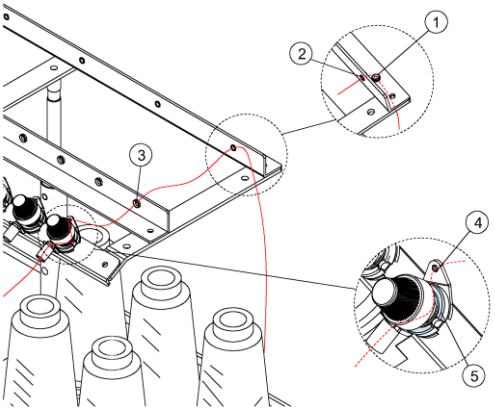
The number represents the threading path for each needle bar.



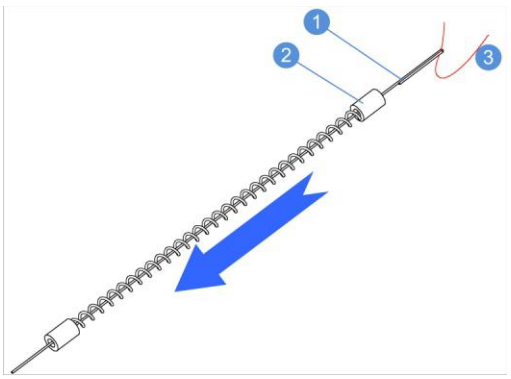




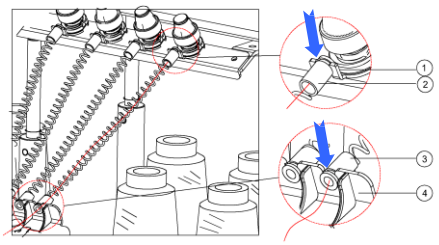
1.Pull out thread from cone, and lead thread respectively through the thread guide hole 1 2 3 4, raise tension adjusting clip 5 to press thread beneath, as shown below.



2.Lead threader 1 through thread guide 2, clamp thread with the clip on threader and pull thread out to ensure smooth threading.

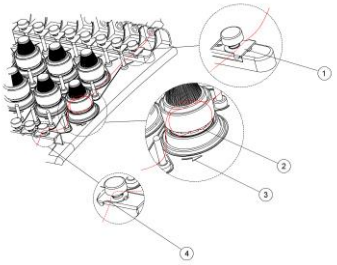


3.Install both ends of thread guide onto machine, and install 1 3 respectively on 2 and 4.

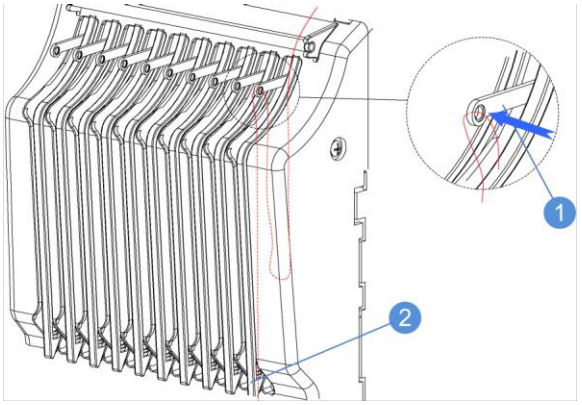


- Thread tube clamp
- Thread conduit
- Thread conduit
- Thread clamping seat

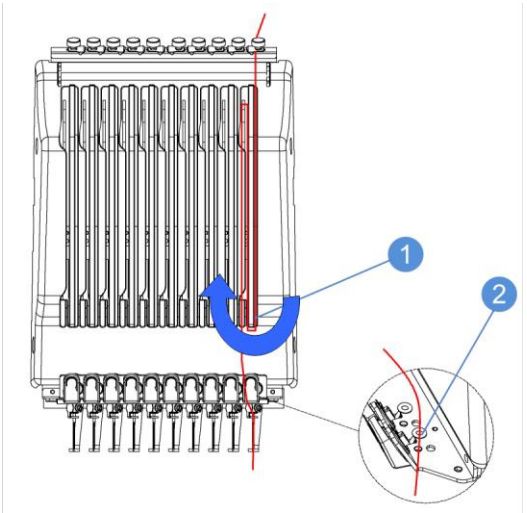
4.Raise clip 1 to press thread and complete threading according to the guide line on machine case 3.



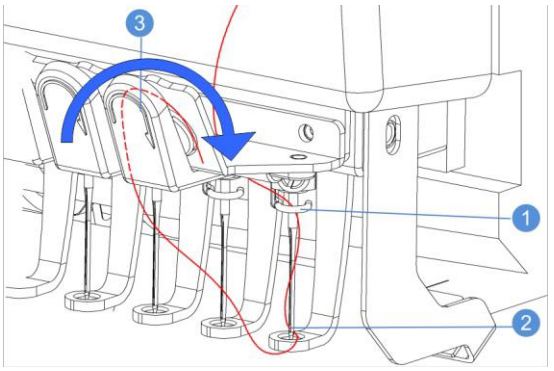
Lead thread through take-up-lever 1 hole from right to the left as shown below.



5.When thread is led through thread distribution plate 1 as shown below, ensure thread bypass thread distribution plate from right to the left, then through position 1 in above figure, pull thread downward and then through thread guide hole 2 as shown below.



6.Lead thread through needle bar guide groove at the position 1 in the following figure, then through needle hole and downward through presser foot hole, pull thread upward and through thread clamper/cutter 3, as shown below, pull downward by force to cut thread by the cutter inside.



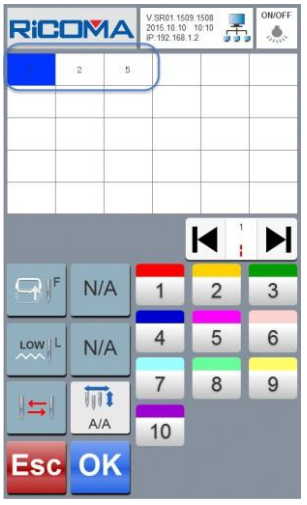
Notes:
When upper thread color is changed, user may cut off the thread between cone and thread guide hole to easily complete threading again. Please place the new cone on the thread holder and connect the new thread to the previous thread, and lead thread through needle eye.

X. Start embroidery

Notes:Be sure no object within the work area of embroidery frame and if the frame collides with object, the design would be askew.

1.To start machine, press Start/Stop at the bottom right of control panel.

Start/Stop button would show green light, and machine starts embroidering the first color.



2.After the first color is embroidered, machine will automatically stop and the thread is trimmed, and needle bar case will automatically move to the position of the 2nd color and start embroidery.

3.It will continue until the last color is completed, and then the embroidery machine will automatically stop.

Notes:

After the design is embroidered, machine will automatically stop, show red light, and the buzzer will sound.

XI. Check thread tension

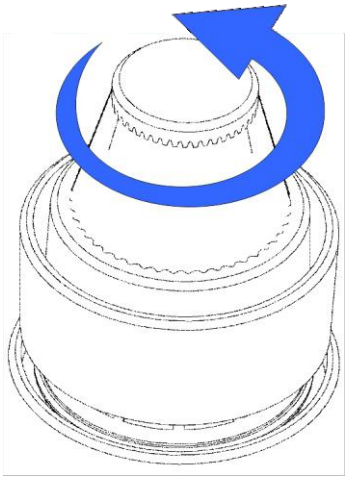
Check if the thread tension for embroidery is correct. If not correctly adjusted, stitching will not be even or the cloth will be wrinkled.

1.Correct thread tension

From the reverse side of cloth, bobbin thread shall be about 1/3 of stitch length.

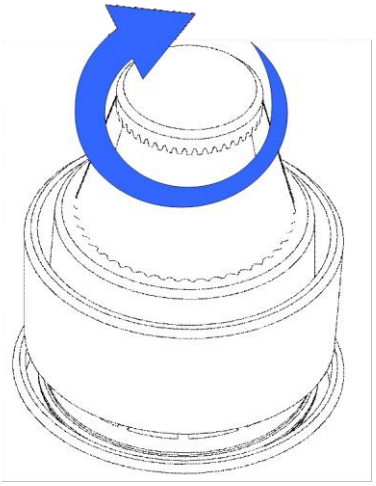
As shown below, thread tension is incorrect, and it is necessary to adjust the thread tension.

User may see bottom thread from the top side of cloth when top thread tension is too tight.



Rotate tension knob in counterclockwise.

When top thread tension is too loose, stitching would be loose, and user may see thread circle.



Rotate tension knob in clockwise.

Notes:
•Under normal condition, user should temporarily stop embroidery machine and check thread tension after first 100 stitches of each color.
•Because of different type or thickness of cloth or backing being used, embroidery results may be different from what is expected, so please make samples before mass production.

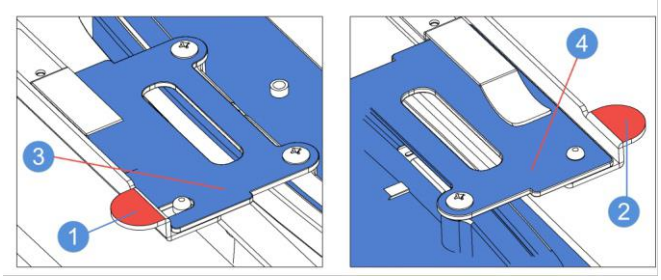
XII. Take off embroidery frame and cloth

After embroidery, remove embroidery frame and take cloth off from frame.

Note:
•Ensure machine has stopped running before embroidery frame is removed.
•After embroidery frame is removed, keep embroidery frame away from any part of embroidery machine.
•Do not raise embroidery frame support or otherwise damage would be caused.

1.Grab the left and right side of embroidery frame stand arm, raise frame stand slightly and pull out embroidery frame toward oneself.

The dowel on embroidery frame stand arm shall stretch out from the hole on both sides of embroidery frame.



•Left arm of embroidery frame stand
•Right arm of embroidery frame stand
•Embroidery frame
•Embroidery frame

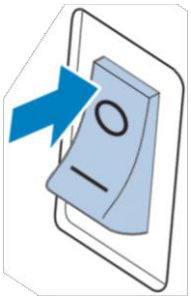
2.Removal of cloth

•Loosen screws on external embroidery frame •Remove external frame and take cloth off.

XIII. Turning off

After embroidery is finished, please turn off the machine

1.Set main power switch at “O”.



2.Pull out power cord from power socket.

Grab plug to pull out power cords.

3.Pull out power cord from machine, if necessary

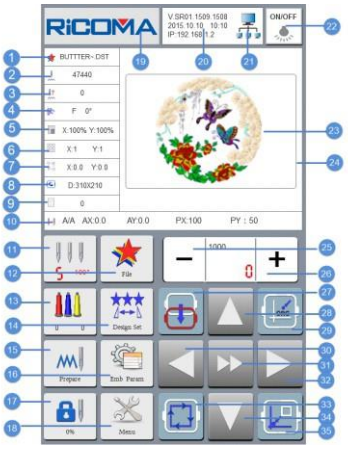
Keep the power cord in a safe place.

In case of power outage during embroidery, please shut down embroidery machine and pull out power cord.

VIII. Quick reference guide for interface

The description of buttons in the figure and other information is provided in the following table.

1.Main interface

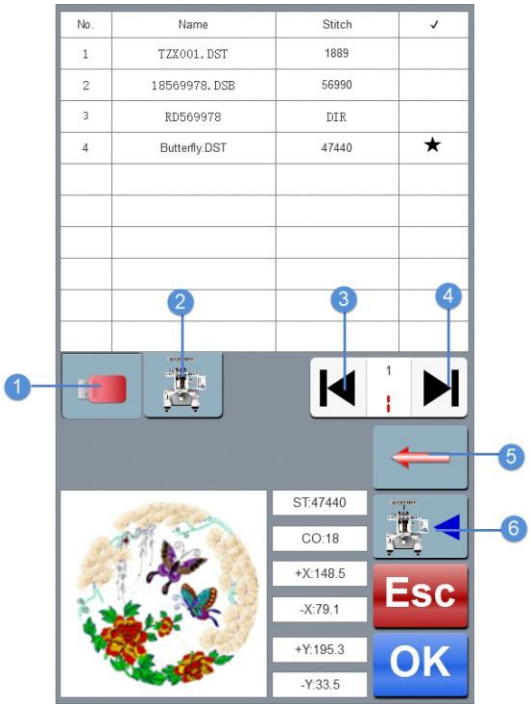


No.	Display Name	Function	Remarks
1		Display design name	
2		Display design stitch number	
3		Display current number of stitches	
4		Display design direction and rotation angle	
5		Display design scaling	
6		Display array number	
7		Display X and Y position	
8		Display size of embroidery frame	
9			
10		Display coordinate parameter	
11		Display current position of needle and main shaft	
12		Design selection and management	
13	Color change setting	Color setting and color change mode switchover	
14	Pattern setting	Set design parameters	
15		Embroidery mode switchover	
16	Setting key	Embroidery parameter setting	
17		Enter/exit ready status	
18		Comprehensive setting	
19		LOGO	
20		Display software version, date,time, and IP address	
21		Display networking status	
22		LED lamp on/off switch	
23		Design display area	
24		Display the range of current embroidery frame	
25	−	Reduce embroidery speed	
26	+	Increase embroidery speed	
27		Frame shift	
28		Control frame movement in Y direction	
29		Return to origin	

30	Left key	Control frame movement in X direction	
31	Selection key	Switch over high/low speed of frame movement and raise/lower machine speed	
32	Right key	Control frame movement in X direction	

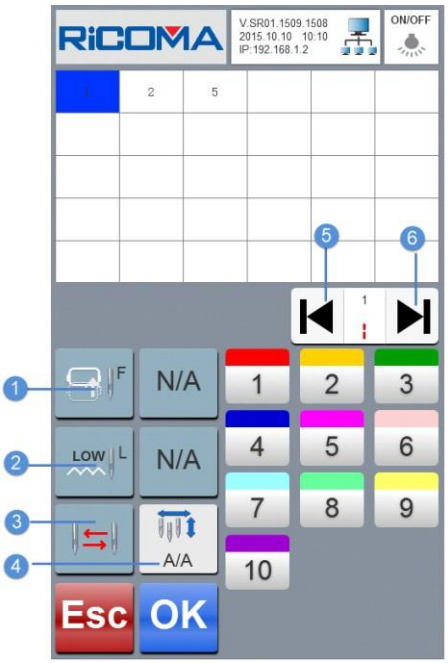
33		One-step tracing key to check embroidery range	
34	Lower key	Control frame movement in Y direction	
35		Return to embroidery stop point	

2.Pattern selection and management interface



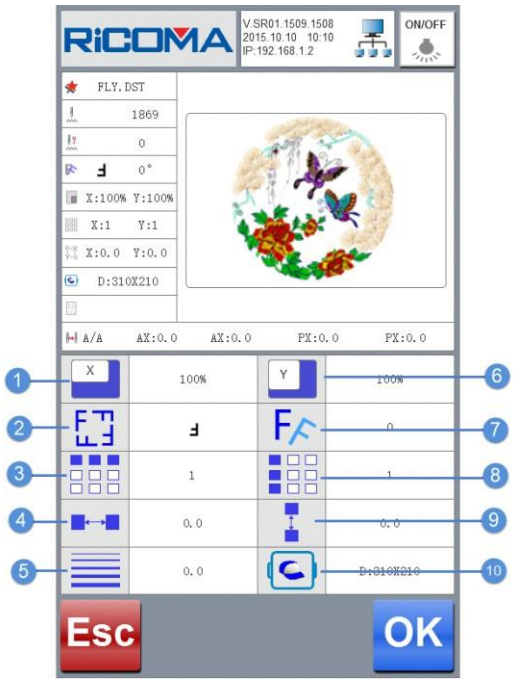
No.	Display Name	Function	Remark
1		Switch to external storage	
2		Switch to internal storage	
3	Page-turning key	To the left	
4	Page-turning key	To the right	
5	Return	Return to upper level menu	
6		Save design in machine memory	

3.Needle bar color setting interface



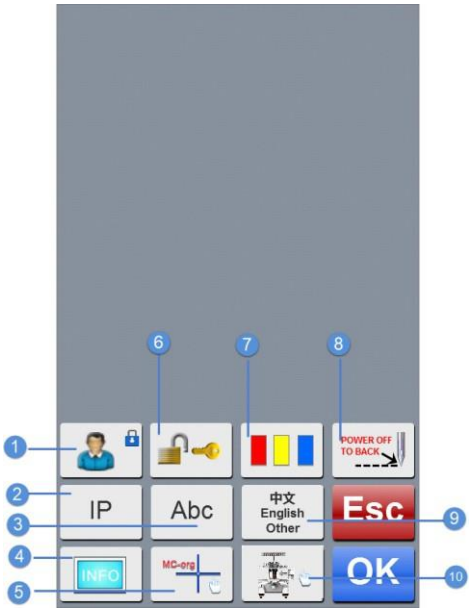
No.	Display Name	Function	Remark
1		Set offset point	
2		Low-speed embroidery	
3		Switching needle bar	
4		Color change mode	
5		Previous page	
6		Next page	

4.Pattern setting interface



No.	Display Name	Function	Remark
1	X	X-direction scaling	
2		Design rotation angle	
3		Number of X-direction array	
4		X-direction array space	
5		Satin stitch compensation	
6	Y	Y-direction scaling	
7		Design rotation angle	
8		Number of Y-direction array	
9		X-direction array space	
10		Status of current embroidery frame	

5.Comprehensive setting interface



No.	Display Name	Function	Remark
1		User restriction setting	
2	IP	IP setting	
3	Abc	Lettering library	
4	INFO	Software information	
5	MC-org	Origin operation	
6		Relieve user restriction	
7		Display color setting	
8	POWER OFF TO BACK	Power-on automatic resetting	
9	中文 English Other	Language setting	
10		Machine testing	

IX. Other basic steps

1.Needle replacement

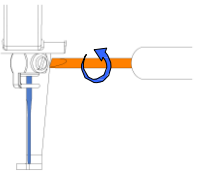
•In case of needle bending or needle point breakage, please replace with a new one by using the screwdriver included.

•Shut down embroidery machine

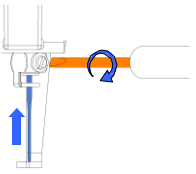
To prevent personal injury caused by accidental machine operation, please shut down power supply before needle replacement.

•Loosen needle positioning screw and remove the needle

Grab needle with left hand and screwdriver with right hand,rotate needle positioning screw in counterclockwise and after loosening,pull out needle with left hand.



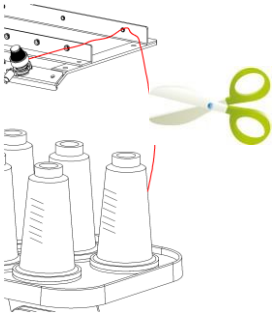
•Keep the flat side at needle point facing the front of machine, insert needle directly until stop, and tighten screw with screwdriver.



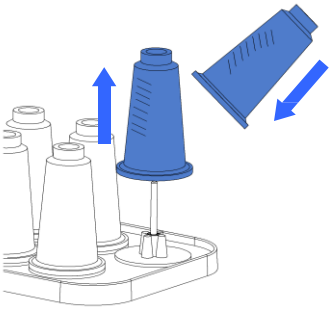
2.Easy replacement of thread cone

•When replacing a cone, rethreading is needed. Rethreading becomes easy if previous threading is done properly.

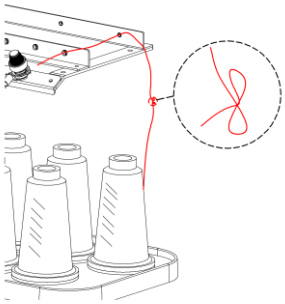
•Cut the thread from cone and thread rack



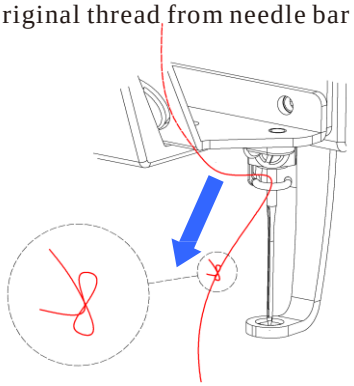
•Replace cone



•Connect thread from the new cone to the remaining thread of last color.



•Pull original thread from needle bar guide groove.



•Pull out thread continuously until the position of knot, take out needle bar guide groove, and cut off the knot on thread.

•Complete threading for new thread again with threader.

Bobbin replacement is then completed.

Notes: Do not pull knot out from needle eye and if so, needle may be damaged.