Creator

User Manual for the Creator
Embroidery Machine

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Read ALL Instructions Prior to Operating

This manual serves as a detailed, step-by-step guide for operating the 10-needle embroidery machine equipped with a 10.1" high-definition LCD touchscreen. Please take the time to read, understand, and follow all instructions carefully. If you have any questions about ordering parts, using the embroidery machine, troubleshooting issues, performing maintenance, or seeking service, reach out to Ricoma's support team.

Important: Before using the machine, you must log in to your MyRicoma portal to watch the pre-training videos and schedule training with our training team. Failure to complete this process will void the warranty.

MyRicoma Portal: https://customer.ricoma.com/

Note: You were sent an email when you purchased your machine that provides you instructions on how to login to your MyRicoma portal. If you need help, please contact us at 888-292-6282.

Important Safeguards and Warnings

When operating embroidery machines, the following safety precautions must be adhered to in order to reduce the risk of fire, electric shock, and/or injury.

This embroidery machine is provided with a warning label. Always exercise the safeguards and warnings indicated on the label. Improper use of this machine can result in temporary, permanent, or fatal injuries.

Prevent injuries: Keep hands, body parts, and other objects away from the needle bar rack, guide rail, and other moving components.

Keep the machine away from heat sources.

General Safety Guidelines

- This embroidery machine is designed for indoor household use only. Do not use outdoors.
- Use only as intended: Do not use the machine for purposes other than embroidery.
- This machine is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities unless supervised by someone knowledgeable and responsible for their safety. The supervisor must have read and understood this manual.
- Children must not operate or play with the embroidery machine or its packaging materials (e.g., plastic bags).

Electrical Safety

- To protect against electrical shock, do not immerse the machine, cord, or plug in water or other liquids.
- Always unplug the machine when not in use, before cleaning, or when servicing parts. Pull the plug, not the cord.
- Ensure the machine is turned off before inserting or removing parts.
- Use a UPS power supply to protect the machine from power surges or outages. Failure to do so may void the warranty.

Maintenance and Inspection

- Regularly inspect the machine and its components. Do not operate the machine if it has a damaged cord, plug, or parts, or if it has malfunctioned.
- Only use accessories recommended by the manufacturer to avoid injuries and malfunctions.
- Do not touch needles or sharp parts while installing or removing accessories or performing maintenance. Use tweezers or pliers to replace needles instead of fingers.
- Keep the machine free from dust and debris, especially around ventilation openings, to prevent overheating.

Placement and Operation Safety

- Use the machine on a stable, level, and durable surface. Avoid placing it near heat sources, open flames, or in direct sunlight.
- Ensure there is adequate ventilation around the machine while in use.
- Do not leave the machine unattended while operating. In case of an emergency, press the “Stop” button and turn off the power.
- Avoid flammable materials near or on the machine during use, including towels, curtains, or similar items.

Weight and Movement

- This machine weighs approximately 95 pounds and requires two people to lift or move it safely. Lift it from the base only.
- Do not lift or move the machine by its touchscreen or removable parts.

Additional Precautions

- Power cord safety: Never overextend the cord, use an extension cord, or allow the cord to touch hot surfaces.
- If the machine is dropped, splashed with liquid, or otherwise damaged, do not operate it. Contact a qualified technician for service.
- The machine's three-prong plug must be used as intended. Do not modify the plug or use an extension cord.
- Tamper-resistant screw: Do not attempt to remove the machine's outer cover. Repairs must be conducted by authorized personnel only.
- If the machine begins to overheat, changes color, or deforms, stop using it immediately and contact your dealer.

Personal Safety

- Avoid wearing loose clothing that could get caught in the machine's components.
- Always wear safety glasses and closed-toe shoes while operating the machine.
- Use extreme caution when moving the machine to avoid injuries.
- Do not attempt to repair or modify the machine yourself. Unauthorized repairs may void the warranty.

Liability Disclaimer

Ricoma®, its affiliates, and partners are not responsible for injuries, damages, or malfunctions resulting from:

- Misuse or modification of the machine.
- Use of unauthorized accessories or parts.
- Failure to follow these instructions.

Warranty Notice

Failure to comply with these safety guidelines, including not connecting the machine to a UPS power supply, may void the warranty.

For questions or service needs, contact your local Ricoma® dealer or customer service at **1-888-292-6282**. Always consult a certified technician for repairs or maintenance.

Embroidery Machine Assembly

Designs will not embroider correctly if the embroidery machine is not set up properly.

Embroidery Machine Stand Assembly

Figure 1: Embroidery machine steel stand put together

Tools & Parts

- 8 screws
- 8 washers
- 8 lock washers
- 8 hex head nuts
- 2 allen wrenches
- 4 casters
- 4 level pegs
- 2 table legs
- 2 connection plates
- 1 table

Instructions:

- Lay each table leg flat on a surface.
- Attach a connecting plate to one leg.
- Take a screw from the toolkit and slide on a lock washer, followed by a regular washer.
- Align the screw with one of the 12 holes in the connecting plate.
- Insert the hex head nut on the outside of the hole and screw through from the inside.
- Repeat steps 3–5 for all 12 screw holes on the connecting plate.
- Use two Allen wrenches to tighten each screw:
- Hold one Allen wrench steady on the screw.
- Use the second Allen wrench to turn the hex head nut clockwise.
- Repeat step 7 for all 12 screws.
- Screw the casters into the bottom of each table leg.
- Attach the leveling pegs and cover the exposed screw ends with the plastic protectors on all four legs.
- Flip the stand upright and place the table on top of the connecting plates.

Embroidery Machine Assembly (Cont'd.)

Thread Stand Assembly

Tools & Parts

- 2 thread stand plates
- (8) 4" x 8" screws
- 1 reinforcing plate

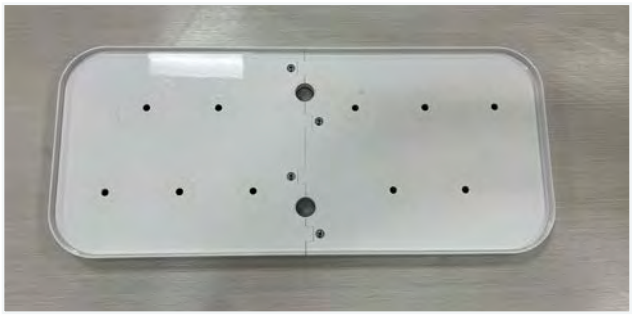


Figure 2: Front view of the thread stand with the screws fully inserted and secured.

Instructions:

- Take thread stand plate 1 and thread stand plate 2 and bring them together.
- Ensure that the tongues and grooves of each thread stand plate meet and the plates connect. Then, add screws to hold the thread stand plates together.
- Flip the thread stand to its backside and place the reinforcement plates into the cross-shaped slots as shown below.
- Screw the reinforcement plates to the back of the thread stand.

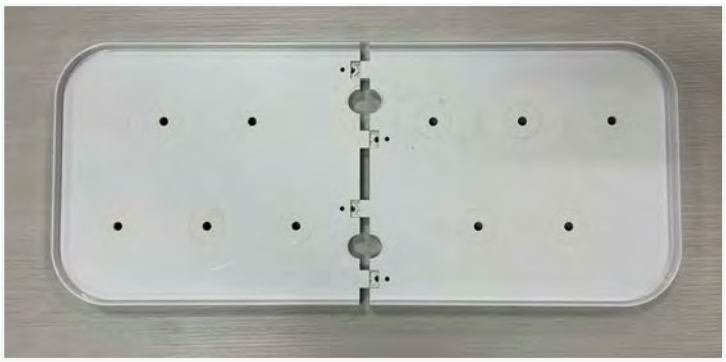


Figure 3: Front view of the thread stand prior to attaching plates 1 and 2.

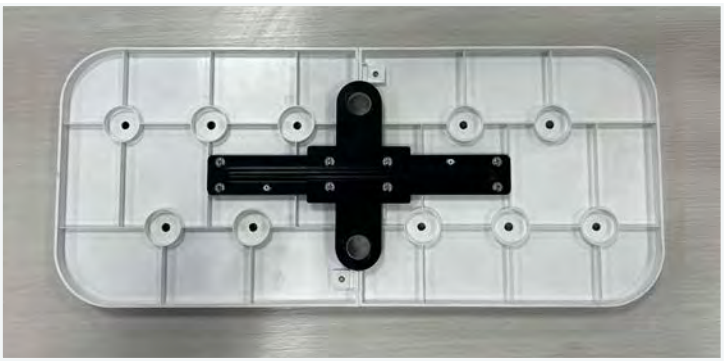


Figure 4: Back view of the thread stand showing the placement and securing points of the cross-shaped reinforcement plates.

Embroidery Machine Assembly (Cont'd.)

Thread Rack Assembly

Tools & Parts

- (1) 2.5mm allen wrench
- 10 thread spool pins
- 10 thread spool adapters
- 10 thread spool mats

Figure 5: Back view of the thread rack indicating where it attaches to the thread stand.

Instructions:

- Locate the screws on the lock nuts at the bottom of the thread rack columns.
- Loosen the screws on the lock nuts at the bottom of the thread rack columns.
- Lift and remove the thread rack, then set it aside.
- Remove the lock nuts from the thread rack columns.
- Reposition the thread stand onto the thread rack.
- If you need instructions on how to assemble the thread rack, see the Thread rack assembly section.
- Turn the thread rack around, add the lock nuts previously removed, and tighten them.
- Reposition the thread rack onto the embroidery machine.
- Tighten the two (2) long, top, hex heads to secure the thread rack onto the thread stand.
- Ensure the thread rack has been securely attached.
- Tighten the screws at the bottom of the two (2) thread rack columns with the allen wrench.
- Loosen the top screws.
- Raise the thread rack up as high as possible.
- Retighten the top screws.
- Connect all ten (10) thread spool pins to the thread stand.
- Place the thread spool mats on top of all ten thread pins, then push them through to the end.
- If needed, place the thread spool adapters on top of the thread spool mats. (These adapters are for thread spools that are larger in size.)
- Choose a thread spool and remove the plastic cover.
- Add the thread spool to the desired thread spool pin.
- Repeat until all ten (10) thread spools are on the thread stand.
- Remove the thread knot found on all ten (10) thread spools and allow the threads to hang.
- See the threading the embroidery machine/top threading section for instructions on how to thread your machine.

Unpacking Your Embroidery Machine

It is recommended to keep all shipping materials and practice safety by having two people carry the embroidery machine.

Instructions:

- Carefully remove the box by pulling upwards, using the cutouts found on the sides of the box.
- Identify all of the accessories encased within the exterior of the Styrofoam surrounding the embroidery machine.
- Remove all accessories, including the cap driver, cap station, thread stand, thread spool adapters, thread spool mats, arm brackets frame attachment, embroidery hoops (5).
- Remove the Styrofoam, take off the velcro tie securing the plastic bag over the embroidery machine, and pull the plastic cover down.
- With the help of another person, carefully lift the embroidery machine from the bottom and place it onto the stand.
- Align the embroidery base feet with the rivets found on top of the embroidery machine stand.
- Remove the protective film.

Figure 6: This is what your embroidery machine box looks like—double-check that you have the correct package before unpacking.

Figure 7: Remove your embroidery machine from the box, leaving the protective plastic covering in place, and prepare to unwrap it.

Adjust and Secure Your Embroidery Machine

To prevent accidents or injuries, lift the embroidery machine with two people, keep it at least two inches away from the wall, and ensure its ventilation is not blocked.

Instructions:

- Set up the embroidery machine on top of a leveled, balanced, and durable surface, or on top of the embroidery machine stand. Make sure to remove all packaging materials from the embroidery machine.
- Adjust the height of the base feet by rotating the adjusting nuts clockwise or counterclockwise. Once desired height has been achieved, lock the base feet by tightening the lock nut.
- Adjust the length of the color LCD touch-screen panel by loosening the panel arm adjusting knobs.
- Tilt the color LCD touch-screen panel by loosening the panel adjusting knob, then tighten it again to hold the panel in place.

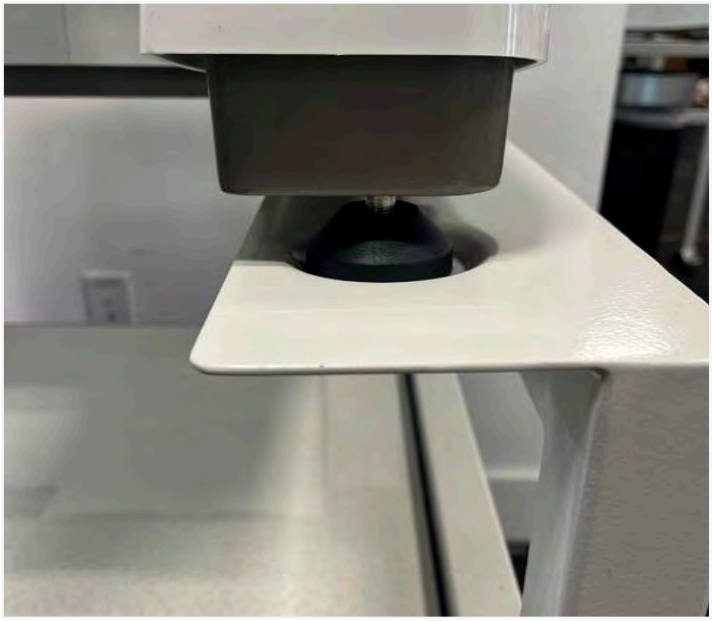


Figure 8: Adjust the height of your embroidery machine by locating and modifying the four adjustable feet underneath. Ensure all four feet are evenly adjusted for stability.

Figure 9: Adjust the touch screen panel arm to your preferred position for easy access and visibility during operation.

Embroidery Machine Overview

Front View

1. Base feet
2. Embroidery hoop
3. 10 thread spool pins
4. 10 thread spool mats
5. 10 thread spool adapters
6. Front thread guide eyelet
7. Flexible thread guide tube
8. Lower thread tension knob
9. Needle bar frame
10. Lower threading mechanism
11. 10.1” Full Color LCD touch-screen panel
12. Thread guide
13. 10 needles
14. Back thread guide eyelet
15. Upper thread tension clip
16. Lower thread tension clip
17. Arm brackets frame support
18. Bobbin housing unit

Embroidery Machine Overview (Cont'd)

Rear View

1. Thread rack
2. 10 Thread spool pins
3. 10 Thread spool mats
4. Manual wheel
5. Power cord
6. Power switch (ON/OFF)

Embroidery Machine Overview (Cont'd)

Arm Brackets Frame View

1. Left embroidery arm bracket (Adjusts to fit different embroidery hoops)
2. Right embroidery arm bracket
3. Embroidery hoop location

Embroidery Hoop Specifications

Embroidery Hoops

Name and Sizes

- Cap driver: 10.24 in by 2.36 in
- Hoop A: 2.76 in by 1.97 in
- Hoop B: 4.33 in by 4.33 in
- Hoop C: 7.48 in by 5.51 in
- Hoop D: 12.20 in by 8.27 in
- Hoop E: 14.9 in by 8.2 in

Hoop A: Measuring 2.76 inches by 1.97 inches, is a compact embroidery hoop perfect for small, detailed designs.

Hoop B: Measuring 4.33 inches by 4.33 inches, is ideal for medium-sized designs.

Hoop C: Measuring 7.48 inches by 5.51 inches, is perfect for larger designs.

Hoop D: Measuring 12.20 inches by 8.27 inches, this large hoop is ideal for expansive designs.

Hoop E: Measuring 14.9 inches by 8.2 inches, this large hoop is ideal for expansive designs.

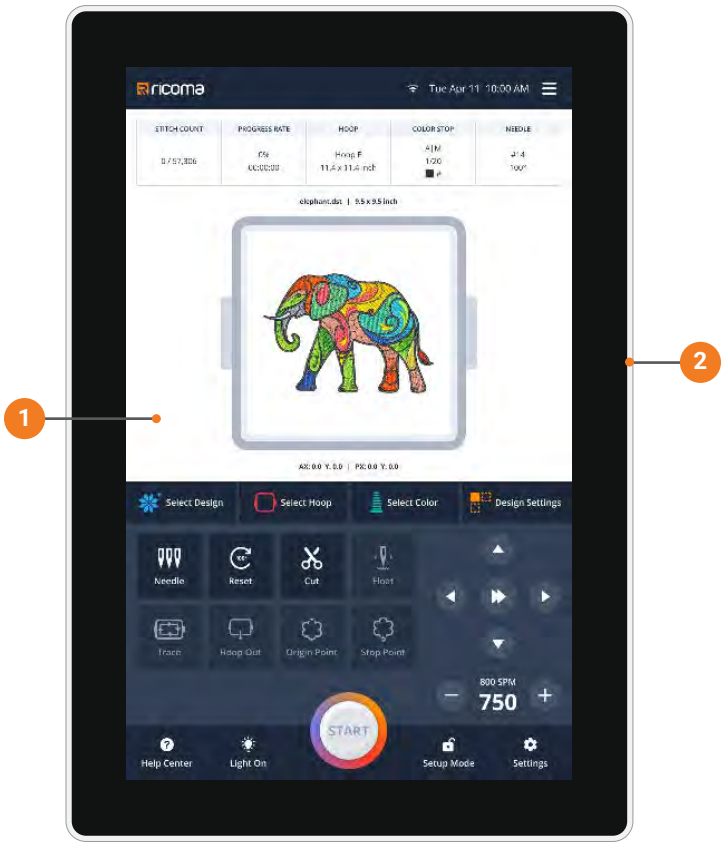
10S Control Panel

Compatible with Ricoma's groundbreaking new line of embroidery machines, this High-Definition True-Color 10.1" LCD Fully-Responsive Touchscreen Panel, also known as the 10S, sets a new standard for embroidery. Boasting a massive 10.1" display, the largest and most user-friendly ever created, this game-changing panel is the industry's first fully responsive touchscreen. Designed for multi-touch capability, the 10S panel guarantees effortless control and a seamless, immersive user experience.

What makes the 10S Control Panel Unique?

- An expansive 10.1-inch display with an easy-to-use interface and multi-touch capability
- Expanded memory capacity, capable of storing up to 10 million stitches and 1,000 designs and performing up to 1,000 color changes
- Reads multiple design formats such as DST, DSB, TBF, and more
- Merges multiple digitized files into a single design
- Easy, over-the-air firmware updates

Panel Guide

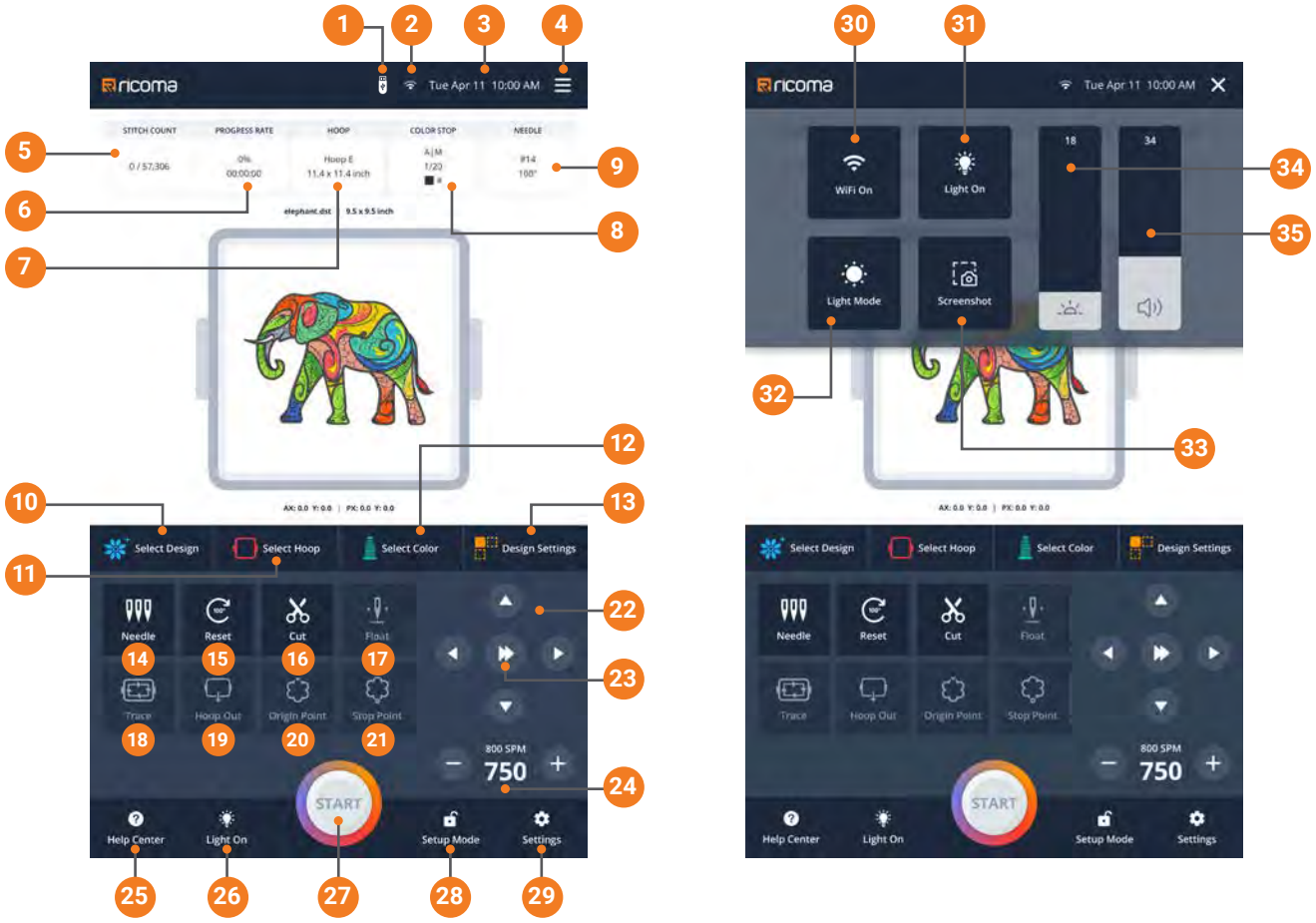


Front View

Rear View

No.	Name	Description
1	Touchscreen Display	This is your main display where you will operate the various functions and features of the panel.
2	USB Ports	Plug your USB drives into these ports when uploading your designs or importing and exporting your machine settings.
3	Ethernet Port	If you do not have WiFi, plug your ethernet chord in here to access the panels web enabled features.

Homepage Overview



No.	Name	Description
1	USB	This icon displays when your USB drive is inserted into the USB ports.
2	WiFi	This display indicates the strength of your WiFi connection. Click on the icon to select and change your WiFi network.
3	Date and Time	This display indicates the date and time. Click here to update these settings on your panel.
4	Options	Click to access the options menu.
5	Stitch Count Indicator	Displays how many total stitches are in your design and tracks how many stitches remain in your design as your machine embroiders.
6	Percentage Rate	Indicates what percentage of your design has been embroidered and how long the design will take to embroider.
7	Hoop Indicator	Indicates which hoop you have selected for your current embroidery project.

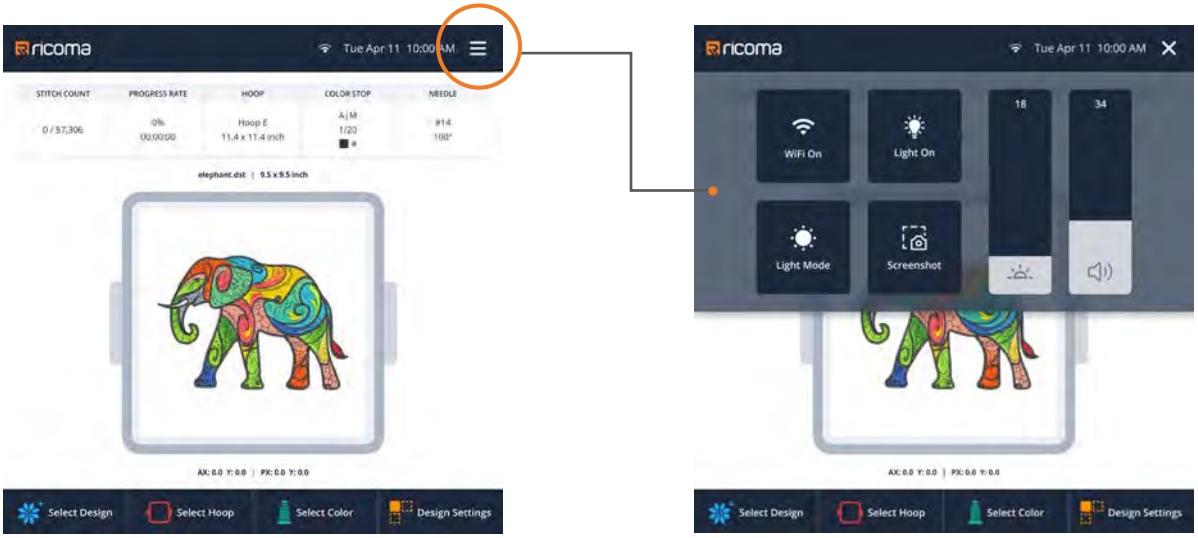
8	Color Stop Display	Indicates which color stop is currently being embroidered by your machine.
9	Needle	Displays which needle is currently active and its degree.
10	Select Design	Click on this icon to access your design library and select the design you wish to embroider.
11	Select Hoop	Click this to access your hoop library and select the hoop you are using for your current embroidery project.
12	Select Color	Click this to access your Thread Color Library and select or edit the color stops in your design.
13	Design Settings	Click here to open the Design Settings menu.
14	Needle Selection	Click here to access the Needle Selection menu.
15	Reset	Hold this button down to reset the height of your embroidery needle.
16	Cut	Click this button to cut your embroidery thread.
17	Float	When in Embroidery Mode, use the float button to skip ahead or rewind your embroidery progress to a specific stitch.
18	Trace	When in Embroidery Mode, use the trace button to open the Trace menu.
19	Hoop Out	When in Embroidery Mode, use the hoop out button to program frame outs into your design to incorporate appliqué material more easily.
20	Origin Point	When in Embroidery Mode, use the Origin Point button to select where your embroidery machine will begin embroidering your design.
21	Stop Point	When in Embroidery Mode, use the stop point button to select where your embroidery machine will finish embroidering your design.
22	Hoop Position Controls	Use these arrows to reposition your embroidery hoop.
23	Fast Forward	Use this button to skip ahead to a specific stitch count.
24	Embroidery Speed	This display indicates your embroidery speed. Use the arrows on either side of your stitches per minute (SPM) to speed up or slow down your design.

25	Help Center	Use this button to access your panel's help center and find resources for the most common embroidery issues.
26	Light On/Off	Use this button to activate or deactivate the exterior lights over your embroidery area.
27	Start/Stop	When in Embroidery Mode, use this button to start and stop your embroidery project.
28	Mode Selection	Use this button to toggle between setup mode and embroidery mode.
29	Settings	Use this button to access your machine's technical settings.
30	WiFi On/Off	Use this button to turn your WiFi connection on and off.
31	Light On/Off	Use this button to activate or deactivate the exterior lights over your embroidery area.
32	Light/Dark Mode	Use this button to toggle your display screen between light and dark mode.
33	Screenshot	Use this button to take a screenshot of your display screen and uplvoad it to a USB. *Please note a USB must be inserted into the panel to use this feature.
34	Brightness	Use this to adjust the brightness of your display screen.
35	Volume	Use this to raise and lower the volume of your panel's alert notifications.

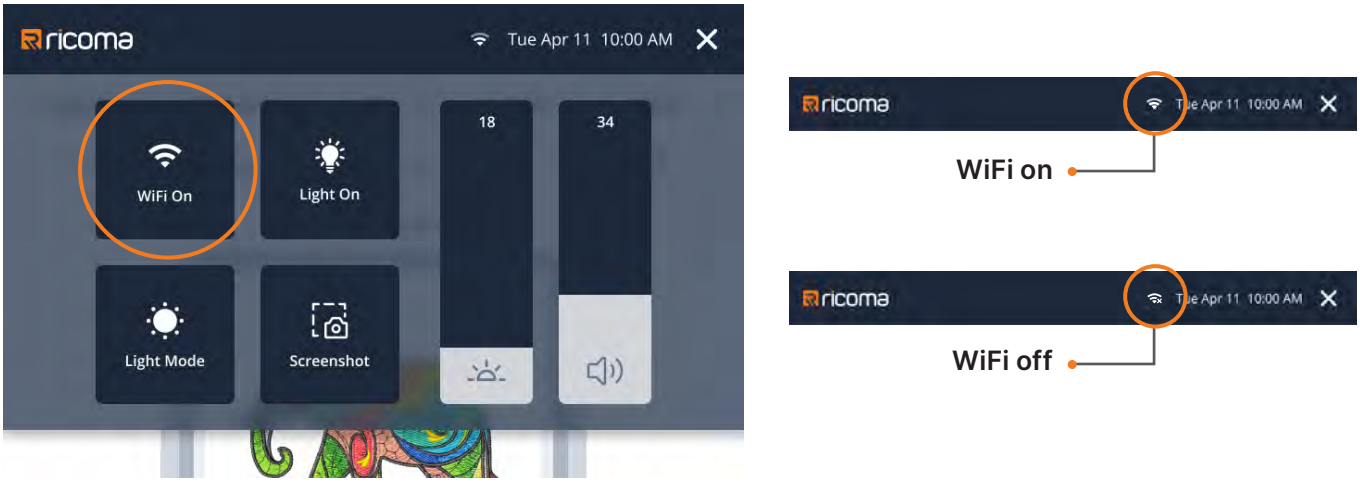
WiFi Set Up

To access the resources in your panel's help center, receive over-the-air firmware updates, receive designs directly from your digitizing software, and manage your designs from the web-based design hub on your computer, your 10S control panel must be connected to your WiFi network.

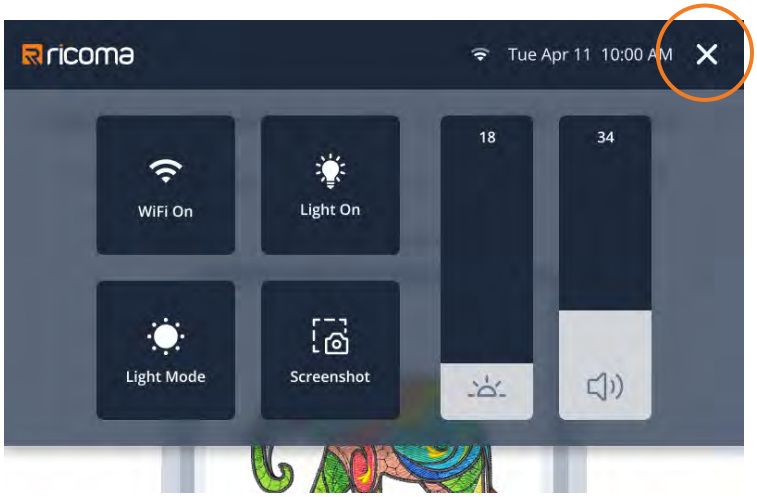
To set up your WiFi connection: Go to the Options menu:



Ensure the WiFi button is turned on.

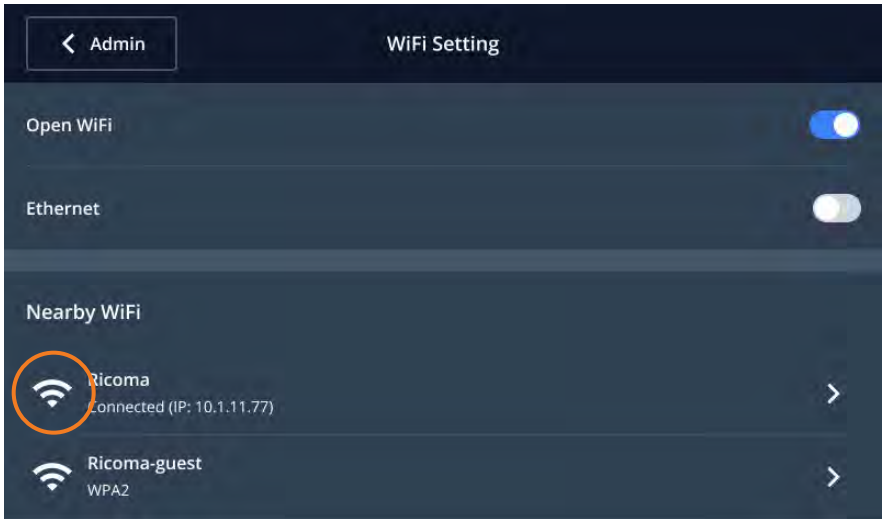


Close the Options menu.



Click on the WiFi icon at the top of your homepage.

Select your WiFi network.

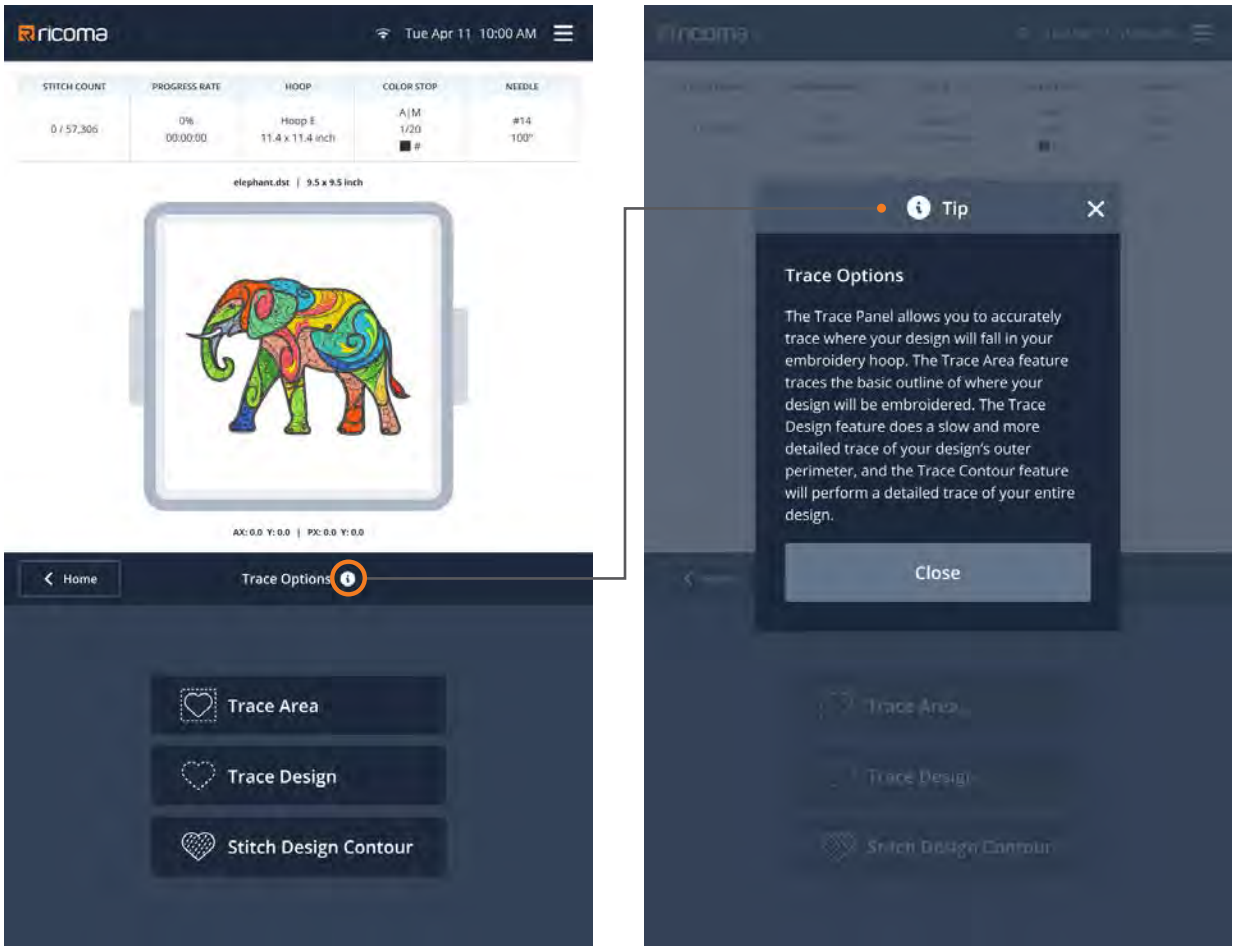


After entering your password, if applicable, your panel will instantly connect to your WiFi network.

Tool Tip Function

To help you navigate the 10S Control Panel and its various tools and features, each page offers a Tool Tip feature that includes information about how to use that specific feature.

Pages with a Tool Tip feature will be indicated by a white “i” icon. To access a Tool Tip, simply click on the icon next to the page name.



Setup and Embroidery Mode

Your embroidery machine has two key operation modes: Setup and Embroidery.

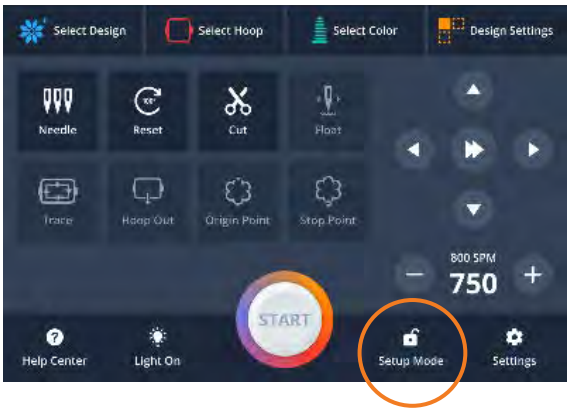
The following features can only be accessed while your panel is in Setup Mode:

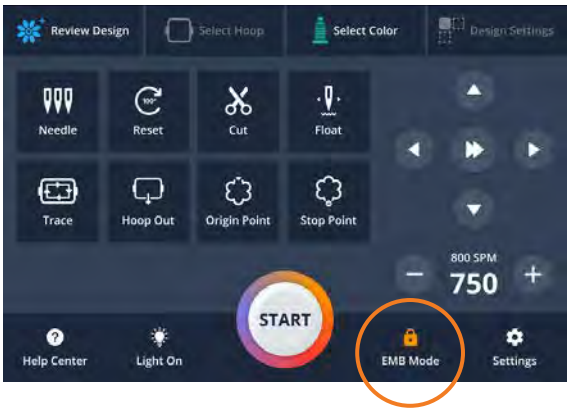
- Select Design
- Select Hoop
- Select Color
- Design Settings
- Needle
- Reset
- Cut

The following features can only be accessed while your panel is in Embroidery Mode:

- Review Design
- Select Color
- Needle
- Reset
- Cut
- Float
- Trace
- Hoop Out
- Origin Point
- Stop Point

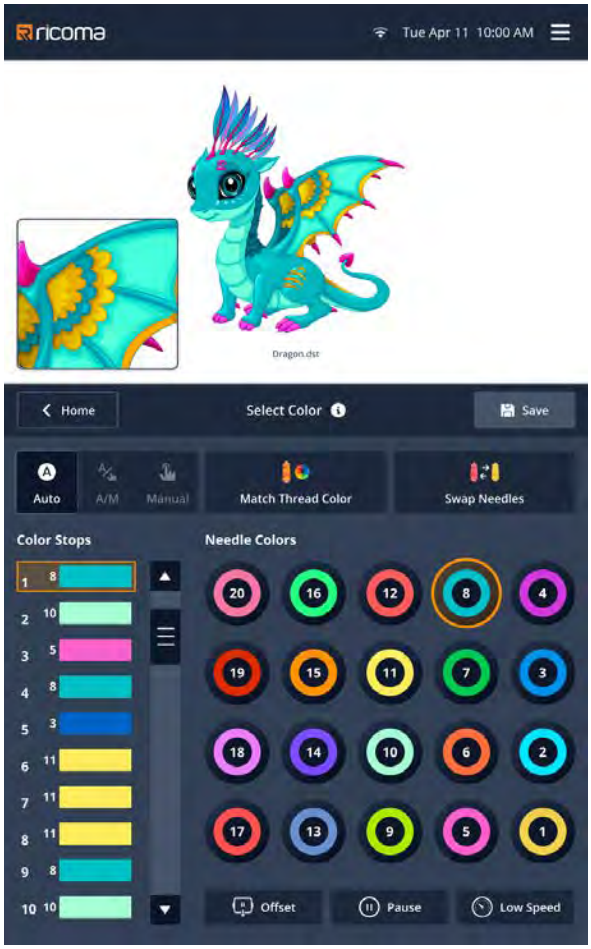
Note: When your machine is in Embroidery Mode, you can browse your library of designs on the 'Review Design' page. To choose a new design, you must switch your panel back to Setup Mode.





Color Selection

On the ‘Select Color’ main screen, you can modify the color stops in your design by selecting a color stop from the lefthand toggle and choosing a needle color from the righthand toggle.



Color Selection (Cont'd)

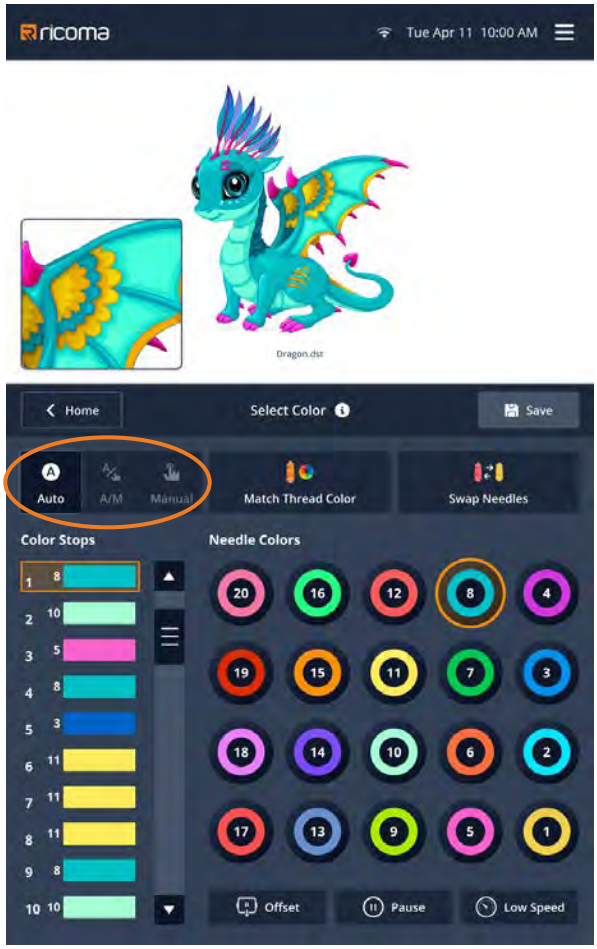
Color Change Modes

In addition to changing your color stops, you can also choose between three color change modes: Full-Automatic, Semi-Automatic, or Manual.

In Full-Automatic Mode, the embroidery machine will transition between color stops without pausing.

In Semi-Automatic Mode, users can program pauses between specific color stops to adjust their embroidery or place appliqué material on their design.

In Manual Mode, the machine will pause between each color stop in the design.

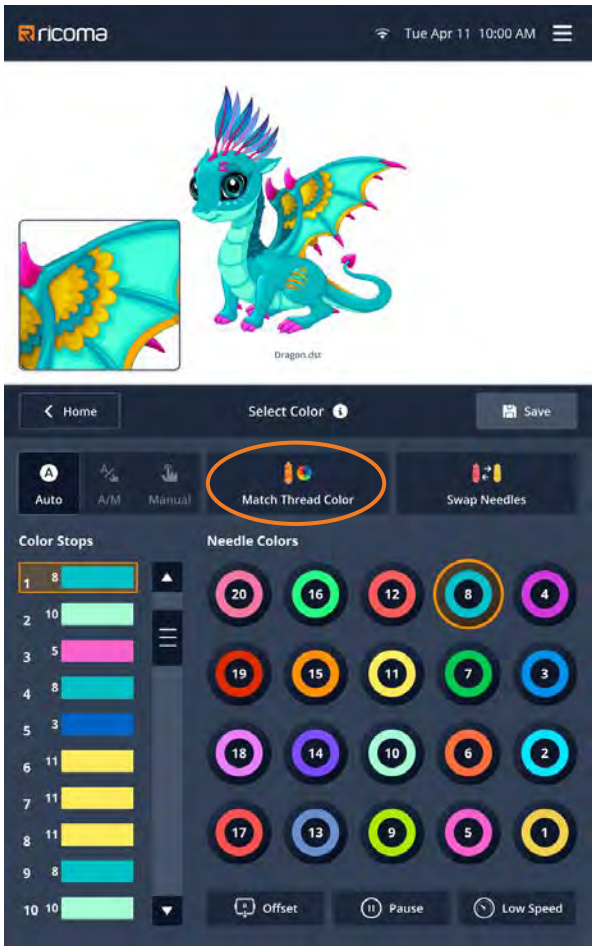


Color Selection (Cont'd)

Match Thread Color

You can also select new colors from the color palette to assign to thread spools and assign color codes to these colors using the 'Match Thread Color' feature.

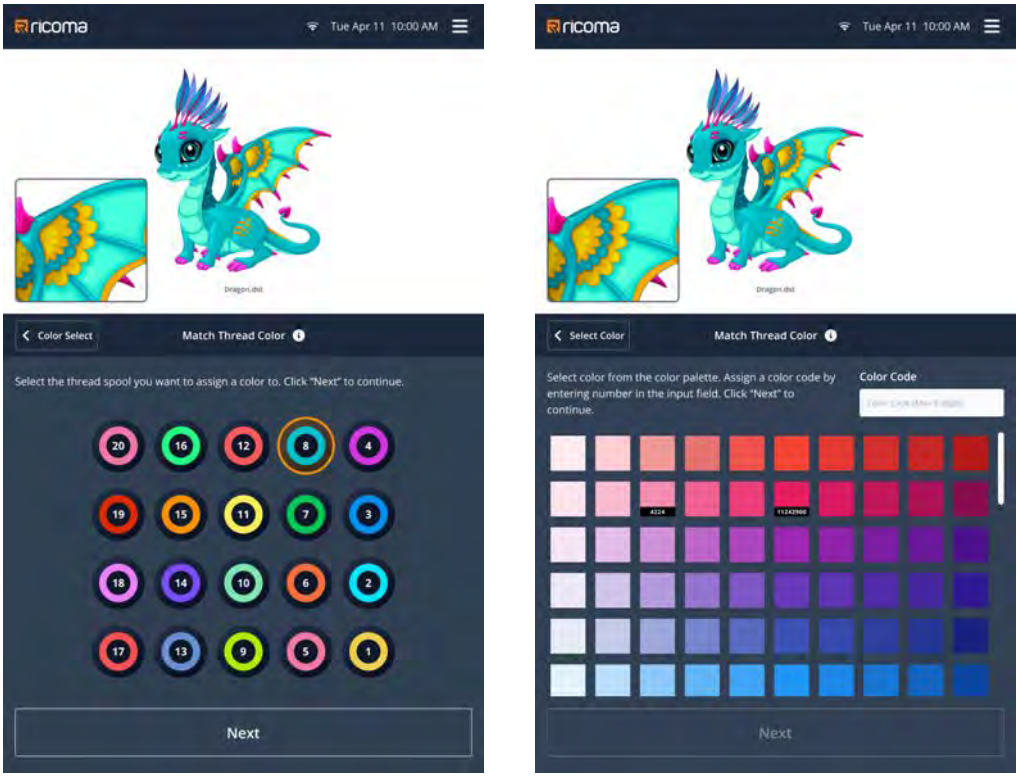
Click on the 'Match Thread Color' icon at the top of the 'Select Color' main screen.



Color Selection (Cont'd)

This will take you to the 'Match Thread Color' page.

Click on the 'Match Thread Color' icon at the top of the 'Select Color' main screen.



Here, you can select the thread color you wish to change and then select the color you wish to change it to from your panel's preprogrammed library of thread colors.

For more precise color matching, users can input the exact thread color code they want to use.

Color Selection (Cont'd)

Swap Needle

When a needle is physically damaged and unable to function, you can use the 'Swap Needle' feature to transfer the color from one needle to another.

To swap needles, click on the 'Swap Needles' icon at the top of your 'Select Color' main page.

Then select the needle you want to 'Swap From' and then select the color you want to 'Swap To.'

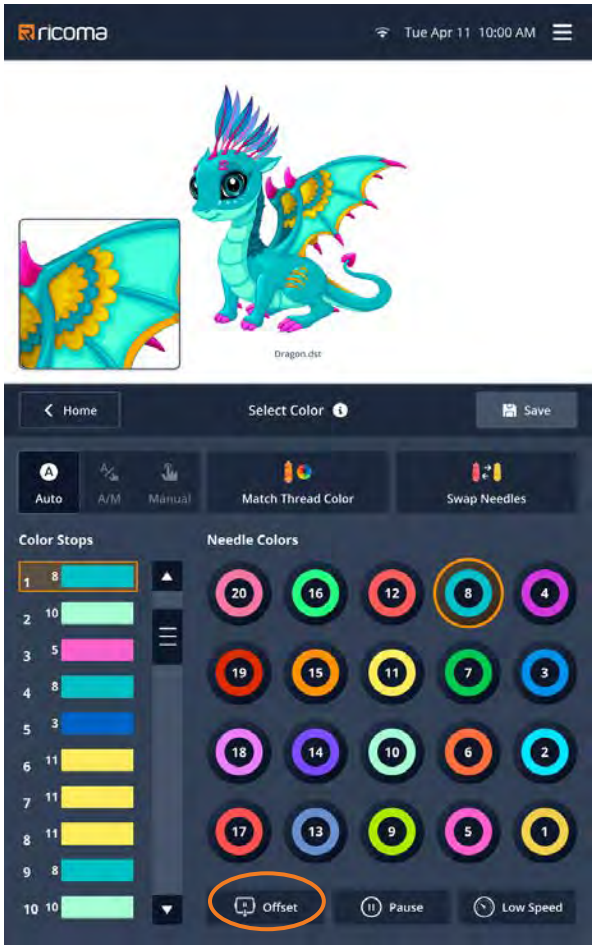
You can also use the Revert Button on this to revert their design to the original color stop.

Color Selection (Cont'd)

Frame Offset

On the color section page, you can also program frame offsets into your embroidery design for easy application of appliqué material.

To add frame offsets to your design, select the color stop you wish to add a frame offset to, then click on the offset icon at the bottom of the page.



Needle Select

On the needle selection page, you can adjust the needle degree for easier threading and replacement of your needles, as well as the height of your presser foot.

From the homepage, select the “Needle” icon. This will take you to the Needle Select page.

Here, you can select the specific needle or presser foot you wish to adjust.

Needle Degree

Use this section to adjust your machine’s timing and needle bar depth. Below you will find the maximum timing degrees and needle bar depths for each of Ricoma’s 10S model embroidery machines.

Timing Degrees:

Marquee: 201°

SWIFT/SWIFTXL: 195°

Creator: 196°

Needle Bar Depth:

Marquee: 178°

MT15/20: 180°

SWIFT/SWIFTXL: 172°

Creator: 172°

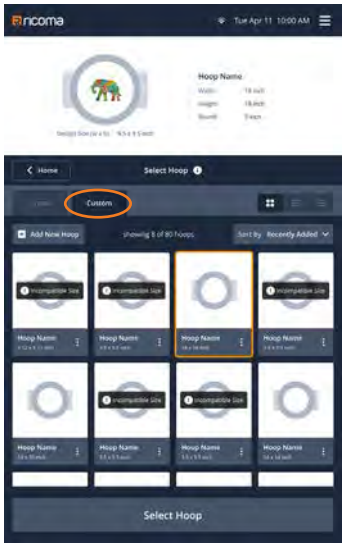
Select Hoop

From the ‘Select Hoop’ page, you can select the hoop you wish to use during your embroidery from the preprogrammed library of hoops, as well as add custom hoop sizes.

To access the ‘Select Hoop’ page, click on the ‘Select Hoop’ icon on your panel’s homepage.

Once here, you can choose between your panel’s ‘Preset’ hoops, referring to the hoops provided with your machines, and ‘Custom’ hoops, indicating the user-defined hoops that you add yourself.

Note: If you have a design selected, your panel will not allow you to select any hoops that do not accommodate the dimensions of your design.



Select Hoop (Cont'd)

Add/Edit Custom Hoops

To add a custom hoop, select the 'Custom' hoop tab.

Then select 'Add Hoop.'

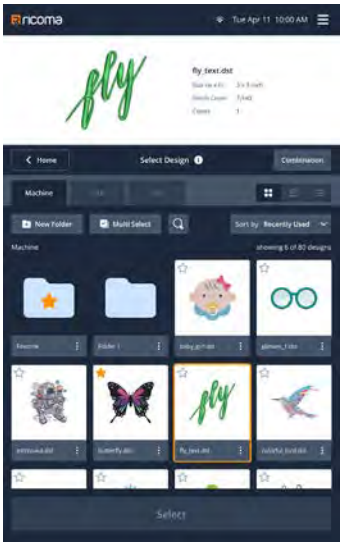
Once in the 'Custom' hoop menu, you can input the required size and shape parameters and save your new hoop for later use.

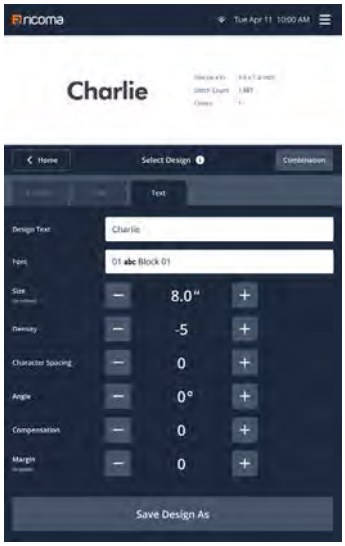
Once your custom hoop has been saved, you can edit your saved parameters and delete the custom hoop by clicking on the three dots icon in the hoop thumbnail.

Select Design

On the ‘Select Design’ page, you can choose the design you wish to embroider from the patterns stored in your machine’s memory or from a USB drive.

To access the ‘Select Design’ page, click on the ‘Select Design’ icon on your embroidery panel’s homepage.





Select Design (Cont'd)

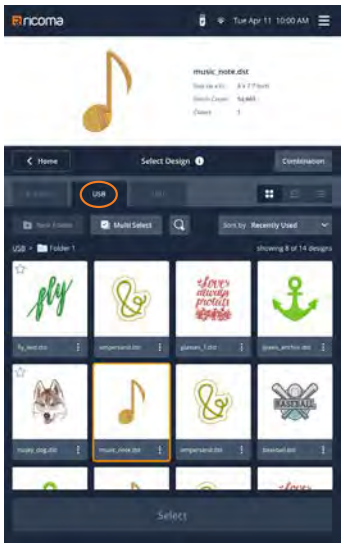
Importing Your Design

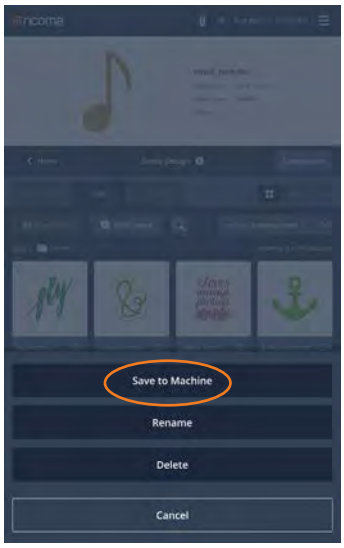
You can import your digitized design directly from your digitizing software or use the flash drive that was provided as part of your embroidery machine package.

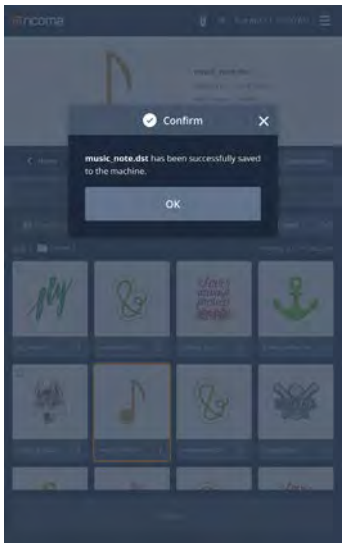
To import your design from your flash drive, insert your flash drive into the USB port on the side of your embroidery panel.

Then select the USB tab on the 'Select Design' page and click on the three-dot icon on your design thumbnail.

Then choose 'Save to Machine'.







Select Design (Cont'd)

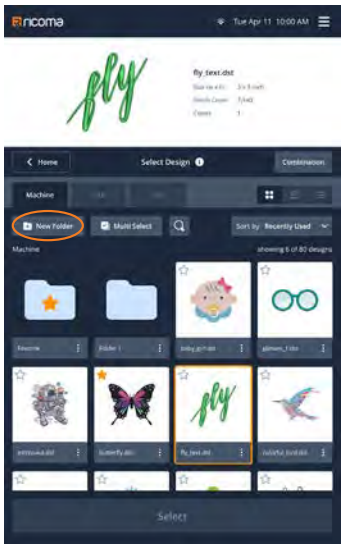
File Management

The 10S panel provides a comprehensive set of features for easily organizing your designs, including favorites, a folder system, sorting capabilities, and search functionality.

To create a new folder, click 'Create New Folder'.

Enter the name of your new folder, then press the X button.

Once created, you can either save or move any design to the folder by clicking on the three dot icon on the design thumbnail and choosing 'Move to Folder.'



To find any folder or design you wish to embroider, click on the magnifying glass icon and enter the name of the file or folder you are searching for.

Favorites Folder

The 10S Control panel also comes with a preprogrammed 'Favorites' folder for your most popular designs.

To save a design to your Favorites folder, click on the star icon next to the file's name. Once the star icon is highlighted, you will be able to go into your Favorites folder and find your design.

Select Design (Cont'd)

Combine Designs

To combine digitized designs, select the main design to which you wish to add a new element.

Then, click the 'Combination' button. This will take you to the 'Combination' menu.

Once in the 'Combination' menu, select 'Add Design' and select the digitized file you wish to incorporate into your design.

Once your new design element has been added, resize, flip, and rotate as necessary.

Finally, select 'Save Design As' to save your new design.

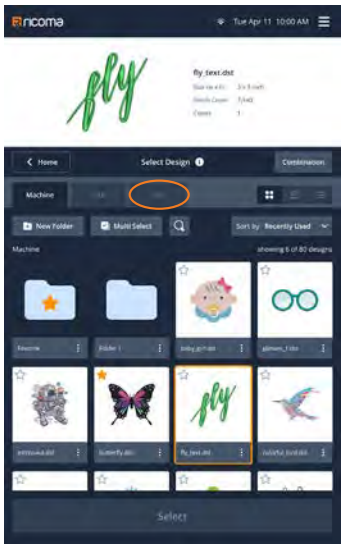
Select Design (Cont'd)

Text Menu

In the text menu, you can add text to any existing embroidery design.

Select the design to which you wish to add text, then select the Text tab.

Type your text into the text box, then select from any of your panel's 24 pre-digitized fonts, as well as edit your text size.



Trace

The Trace Panel allows you to accurately trace where your design will fall in your embroidery hoop.

To trace your design, select the ‘Trace’ icon on your panel’s homepage.

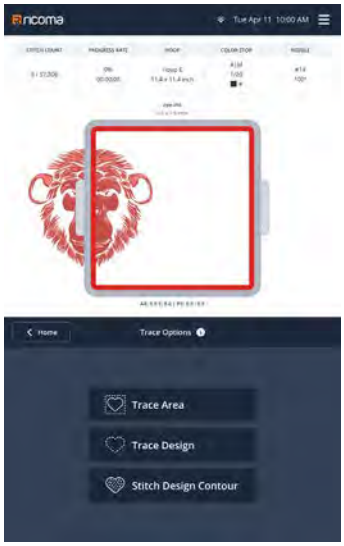
You will then be given three trace options to choose from.

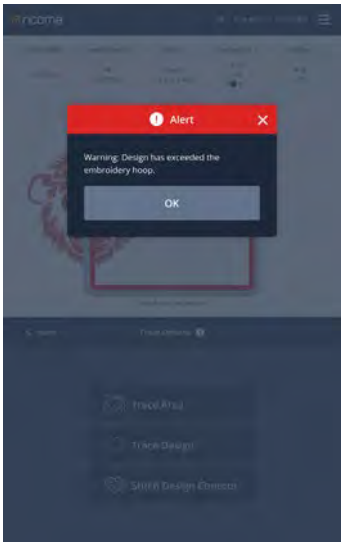
The ‘Trace Area’ feature traces the basic outline of where your design will be embroidered.

The ‘Trace Design’ feature does a slow and more detailed trace of your design’s outer perimeter.

The ‘Trace’ Contour feature will perform a detailed trace of your entire design.

Trace (Cont'd)





Note: Your design must be inside your hoop area to trace. If your design falls outside of your hoop area or you wish to reposition your design after performing your trace, use the arrows on your panel's homepage to adjust your design's position.

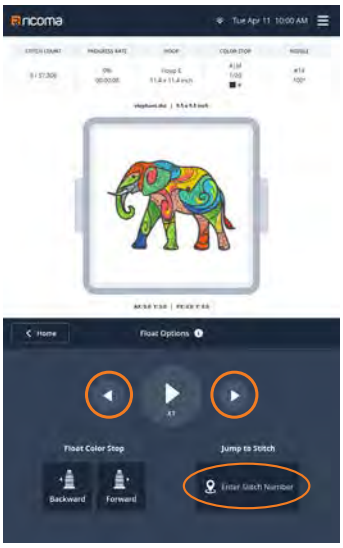
Floating Your Design

The float feature allows you to skip or rewind your embroidery project to a specific point in your design.

To use the float feature, select the ‘Float’ icon on your panel’s homepage.

You can then use the backward or forward buttons or the arrows on your ‘Float Options’ page to manually fast forward or rewind to the desired point in your embroidery project.

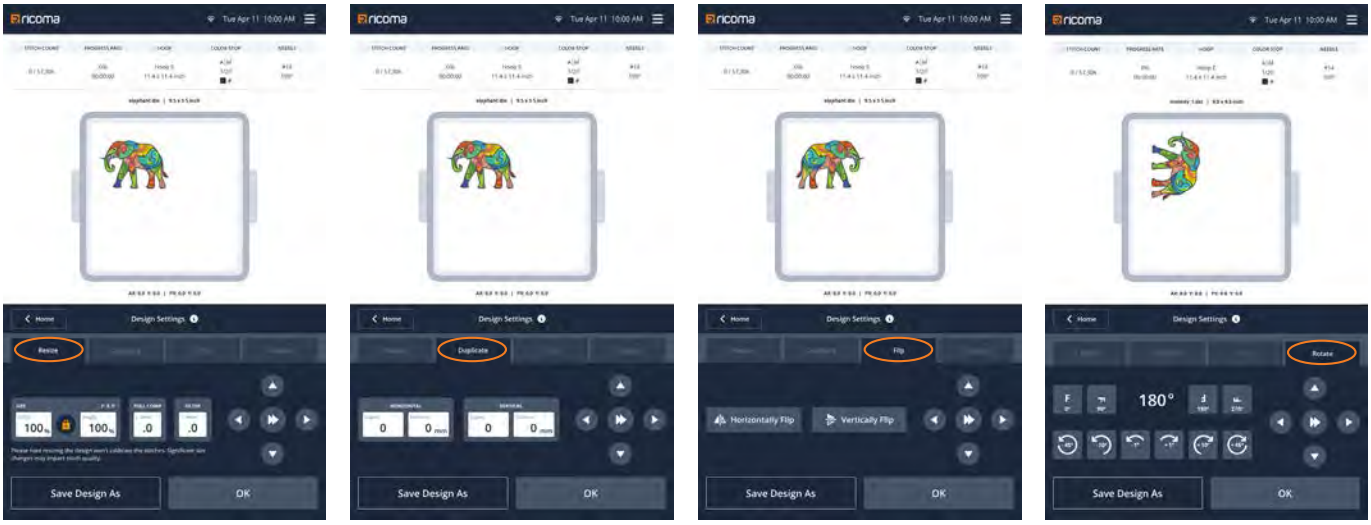
You can also use the ‘Jump to Stitch’ option to manually enter the stitch number to which you wish to skip.



Designs Settings

On the “Design Settings” page, you can resize, duplicate, flip, and rotate design patterns as needed.

To access the design settings page, click on the ‘Design Settings’ icon on your home page.



Resize

To resize your design, select the resize tab.

Enter your new design dimensions.

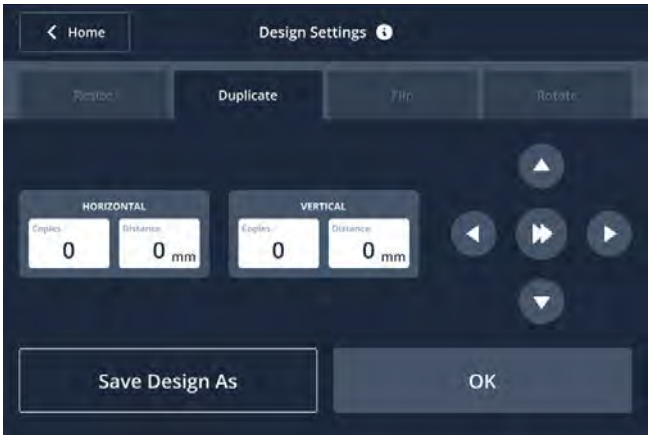
Then press ‘OK’.

Duplicate

To duplicate your design, select the duplicate tab.

Then, enter the number of copies you wish to create vertically or horizontally next to your original design, as well as the amount of space you wish to leave in between each design.

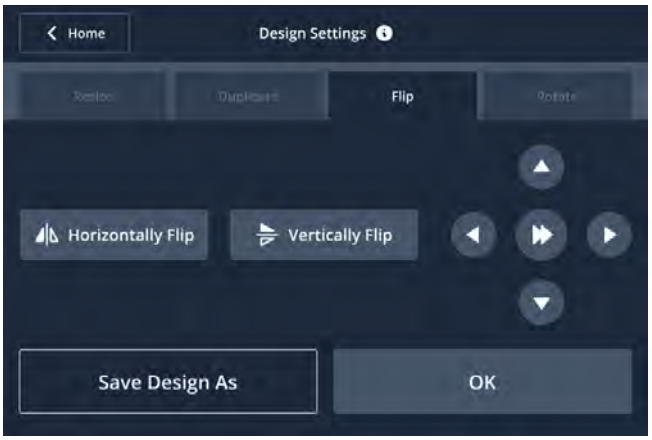
Finally, press 'OK'.



Flip

To flip your design, select the flip tab.

Then, select whether you wish to flip your design horizontally or vertically, and then press 'OK'.



Rotate

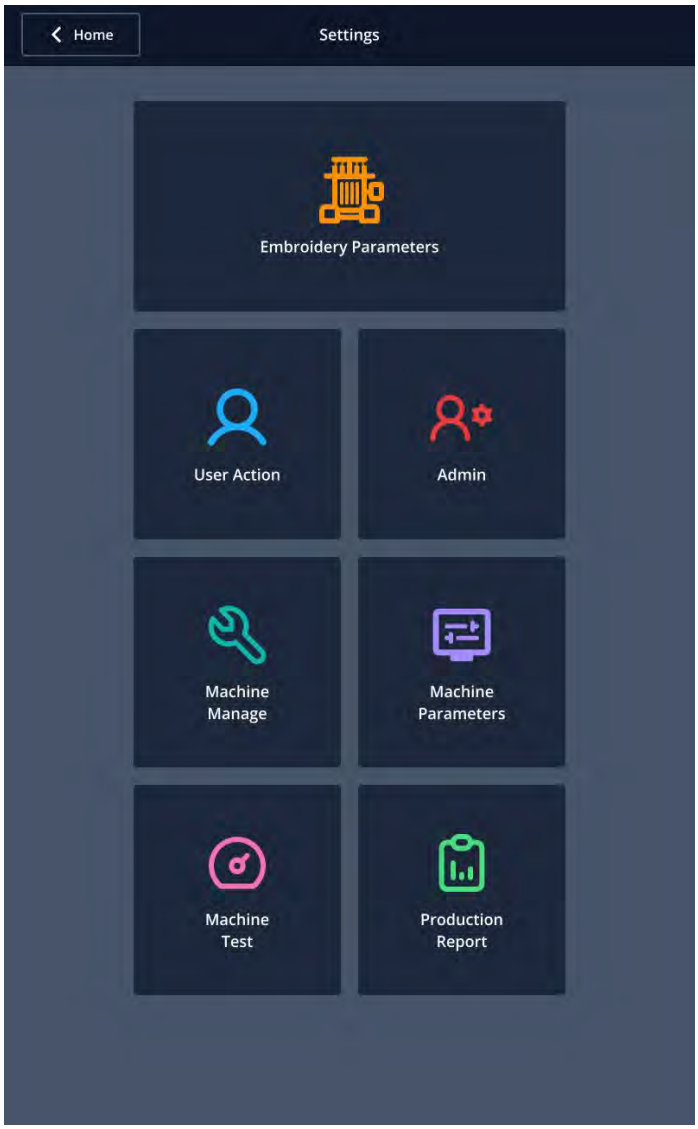
To rotate your design, select the rotate tab.

Then select the degree you wish to rotate your design and press 'OK'.

Settings

The ‘Settings’ page is where you can adjust the various technical settings of your embroidery machine, change your alert preferences, access your maintenance checklist, initiate software updates, and so much more.

You can access the settings page by clicking on the ‘Settings’ icon in the bottom right-hand corner of your



Embroidery Parameters

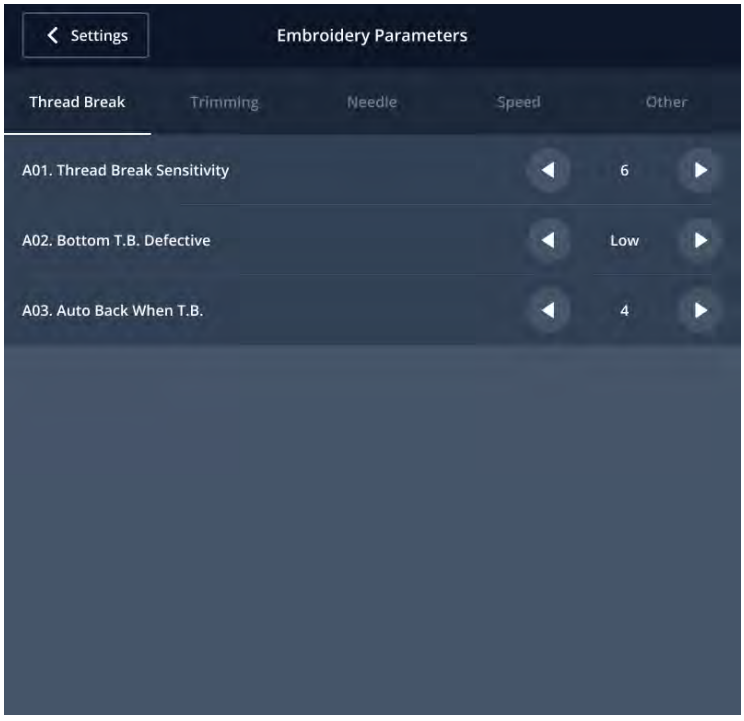
Under the embroidery parameters section, you can adjust your machine's thread break sensitivity settings.

You can also adjust your thread trimming settings, set your needle preferences, adjust the speed of your embroidery machine's various processes, and adjust your machine's technical specifications.

At the bottom of this page, you will also see two buttons, 'Output Settings' and 'Input Settings.' If you have more than one embroidery machine with the 10S Panel, you can use these buttons to import and export the embroidery parameters from one machine to another.

To export your embroidery parameters and machine settings to another machine, insert a USB into your 10S Panel and press the 'Output Settings.' Your panel will automatically save your embroidery parameters and machine settings to your USB drive.

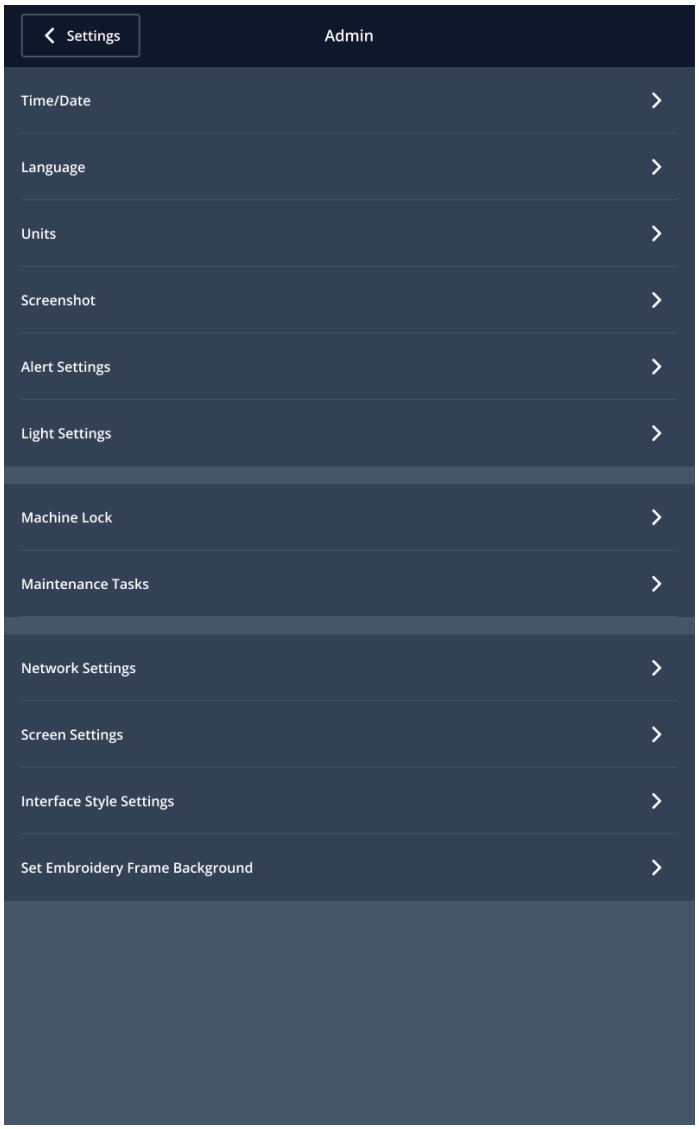
Then, insert your USB into the 10S panel of the machine you wish to update with the new parameters and settings. Go to the embroidery parameters page and select 'Input Settings.' You will then be prompted to select the file with the parameters you wish to import. Once you select your file, your machine will automatically update with the parameters and settings from your other machine.



Settings (Cont'd)

Admin

The Admin page is where you can change your machine's language, date and time, metric units, brightness, WiFi and alert settings.



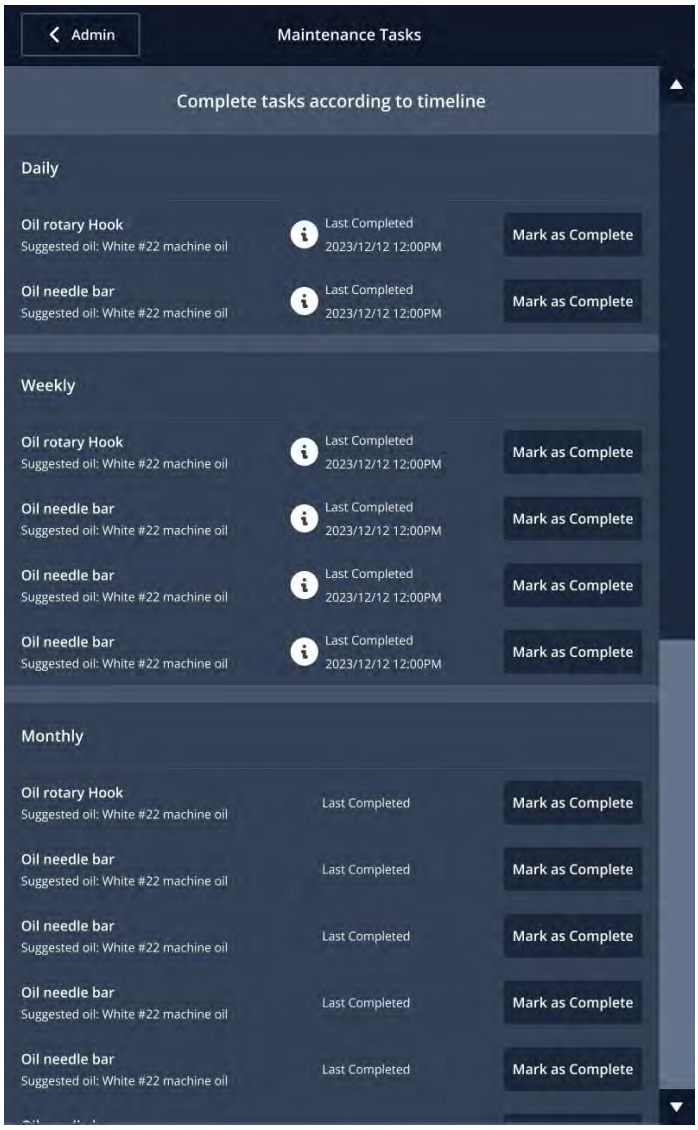
Settings (Cont'd)

Maintenance Tasks

Under the admin page, you can also access your machine's maintenance log.

The maintenance log tracks when your various maintenance tasks were last completed.

After performing each maintenance task, you can mark the task as complete, and your panel will automatically record when the task was completed.



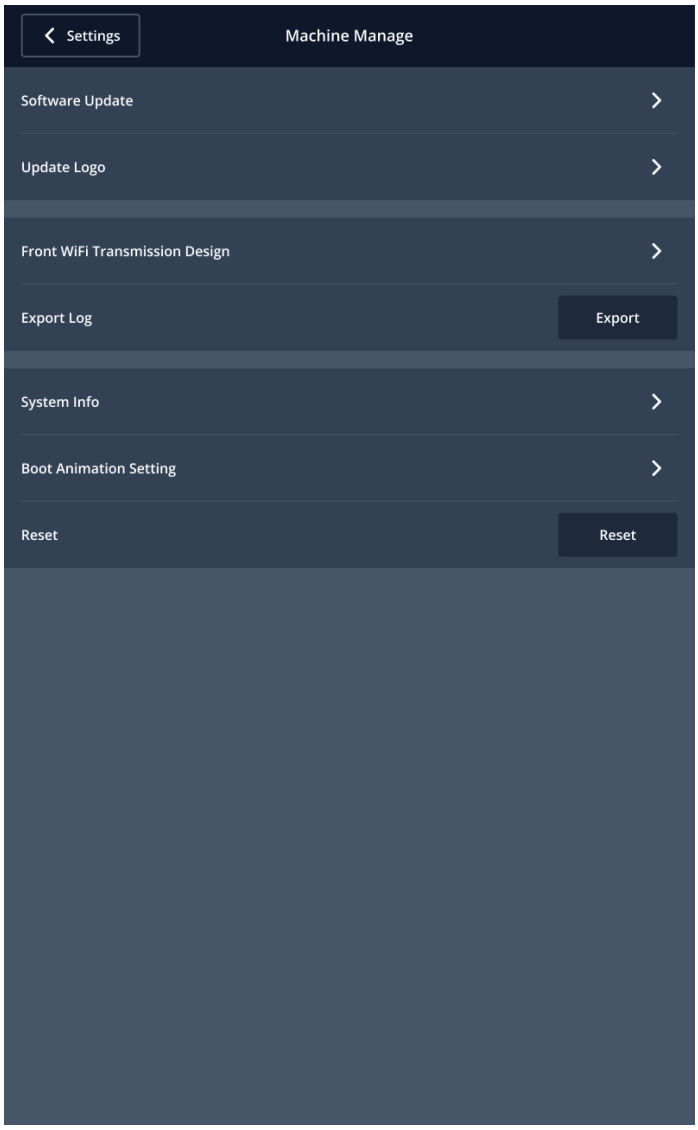
Settings (Cont'd)

Machine Manage

The Machine Manage page lets you update your panel's software and export your machine's performance specs and maintenance log to a Ricoma service technician.

To export your log, insert a USB into your panel and select the 'Export' button next to the Export Log tab. Your panel will instantly export performance specs and maintenance log to your flash drive.

You can then email your log to your technician or the Ricoma service team from any USB-compatible computer or tablet.

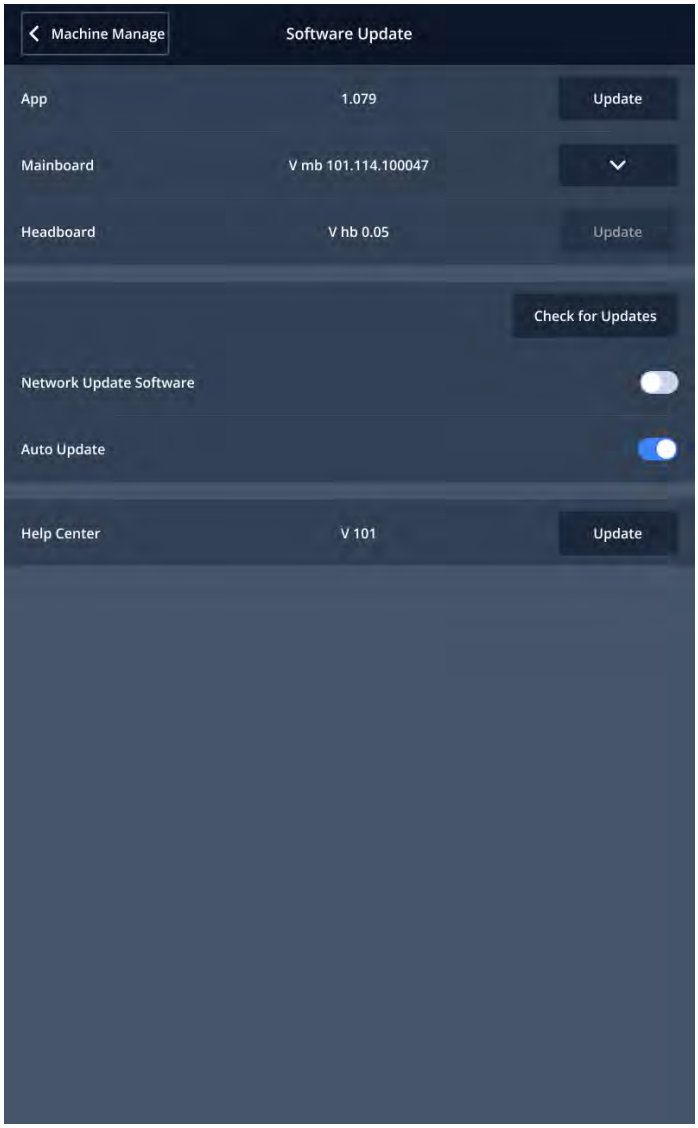


Software Update

To check for a software update, click on the 'Software Update' tab.

If a software update is available, the 'Update' button will appear illuminated. Click on the update button to automatically begin the software update.

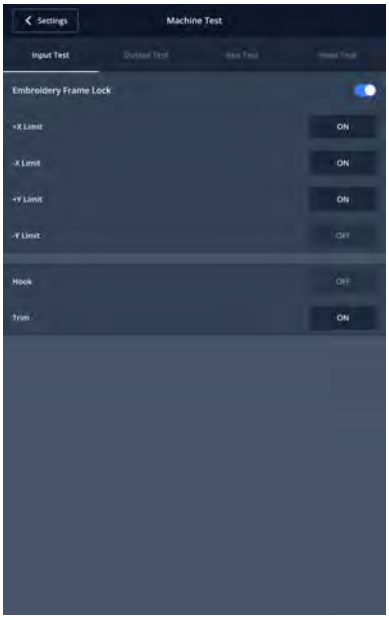
If your panel's software is up-to-date, the 'Update' button will appear greyed out.

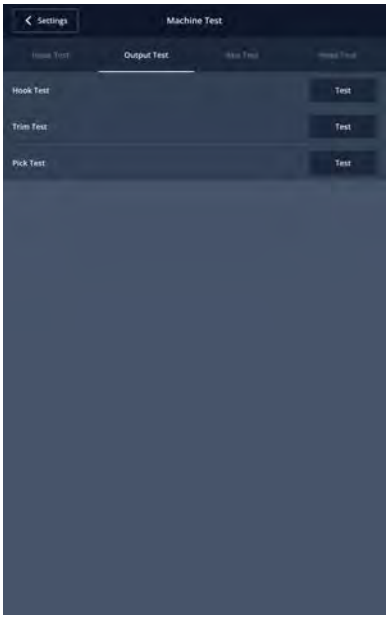


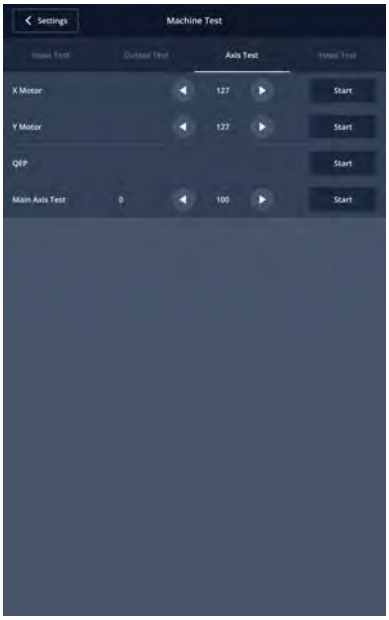
Settings (Cont'd)

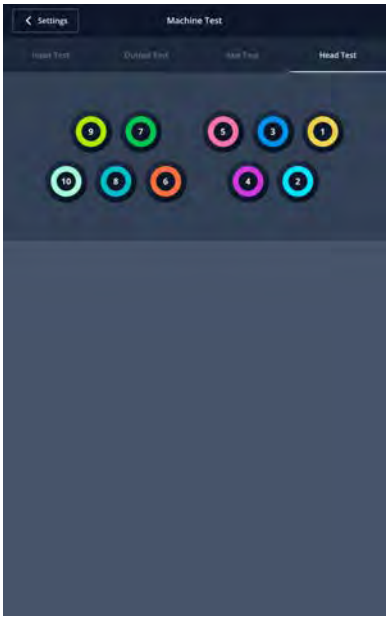
Machine Test

The Machine Test page is where you can perform tests of your machine's various components, including your thread trimmer, rotary hook, engine, and more.





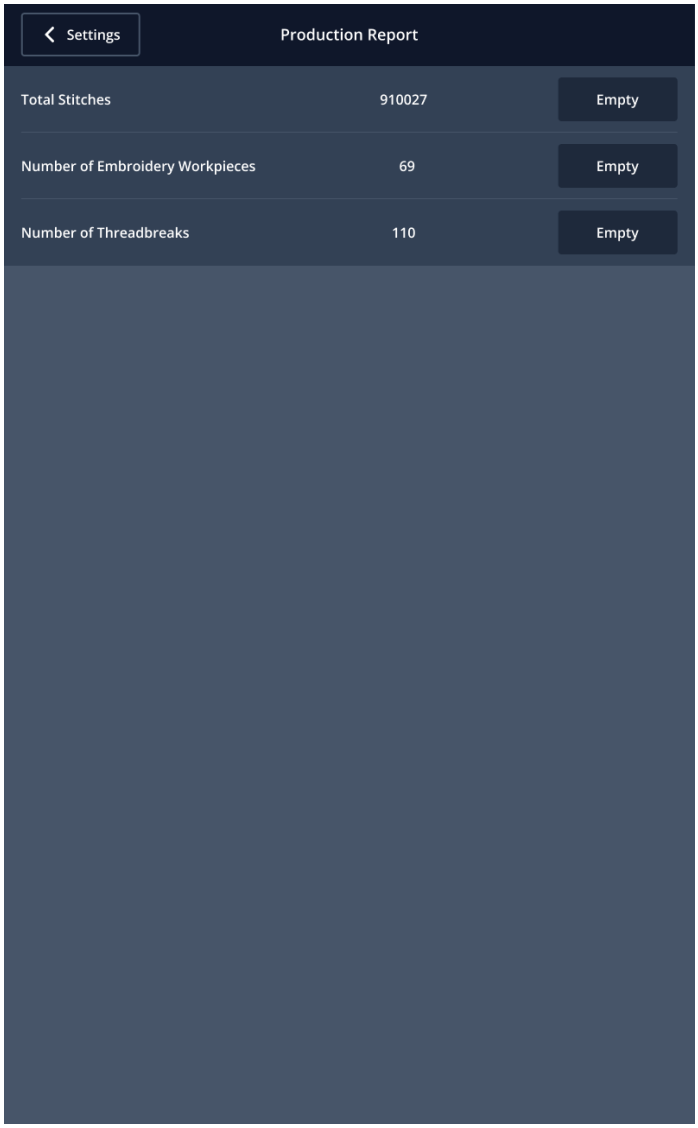




Settings (Cont'd)

Production Report

Lastly, your production report page lets you track your machine's performance, including the total number of stitches, embroidery projects, and thread breaks.



Bobbin Overview

Instructions:

- An “L” size/style bobbin must be used for your embroidery machine.
- The same steps apply whether installing or replacing a bobbin.
- The bobbin case can be found in the toolbox.
- The rotary hook comes with a foam piece – remove before use.
- The embroidery machine will not indicate the remaining quantity of bobbin thread. Before starting embroidery, ensure sufficient bobbin thread for the embroidery design.
- Clean the bobbin case when replacing the bobbin.
- Open the needle plate and clean the trimming set area weekly.
- Wind self-wound bobbins or buy pre-wound commercial bobbins in disposable cartridges. **Note:** Self-wound bobbins tend to be inconsistent in the way the thread releases from the spool.
- Threads are available in spun polyester, filament polyester and nylon.
- If the bobbin runs out of thread, the embroidery machine will display a thread break
- (“T-break”) notification. See the Thread break section for more information.
- For a high speed, commercial embroidery machine, a smooth and consistent release of thread is required for proper function. Commercial pre-wound bobbins are economical, and they run smoothly. It is better to run a polyester bobbin, not cotton a cotton bobbin because it leaves less lint.
- On average, bobbins usually last for about 35,000 to 42,000 stitches depending on the stitch length of your design.

Bobbin Overview (Cont'd)

Placing the bobbin into the bobbin case

Inserting your bobbin correctly is essential for smooth operation of your embroidery machine, as issues with the bobbin thread can impact all needle bars.

Instructions:

- Hold the bobbin with the thread in the clockwise direction.
- Insert the bobbin into the bobbin case.
- Pass the thread through the opening slit.
- Pull the bobbin thread under the tension arm and exit the notch at other end.
- Turn the bobbin over, and pull on the thread.
- Ensure the bobbin rotates in a clockwise direction.
- Wrap the thread around the pigtail twice.

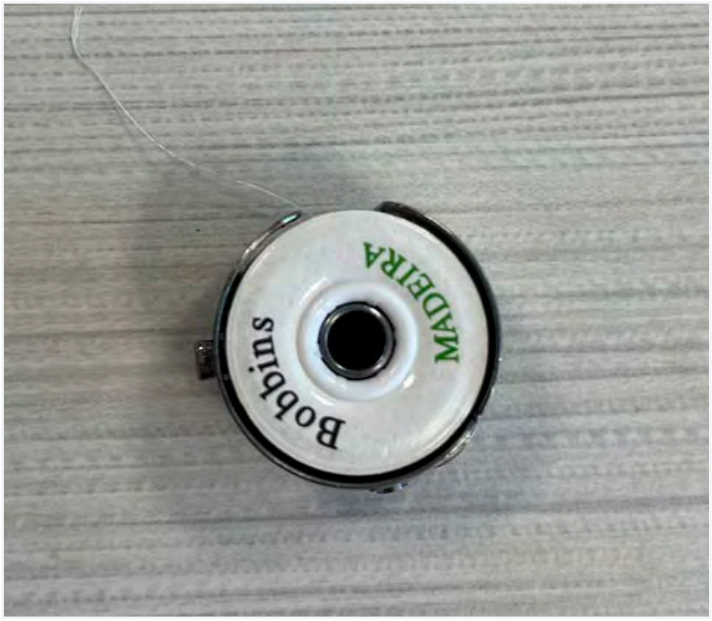


Figure 10: The bobbin inserted into the bobbin case in the clockwise direction.

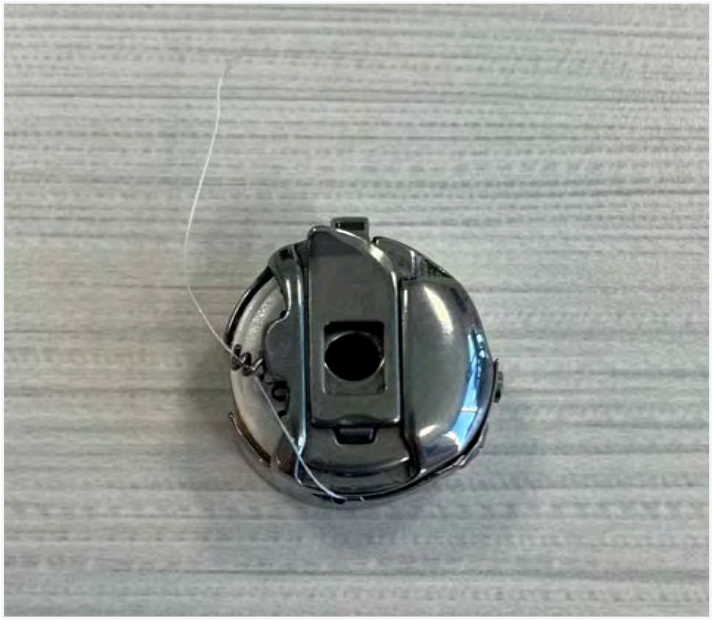


Figure 11: The bobbin thread wrapped around the pigtail twice.

Bobbin Overview (Cont'd)

Placing the bobbin case into the rotary hook

Instructions:

- Grab the bobbin case by the bobbin case release latch and insert it into the machine. **Note:** Ensure the thread tail is no longer than three (3) inches. A longer tail can wrap around the shaft and create a "buildup" of thread. If the thread is not long enough, the needle will be unable to grab it.
- Hold the bobbin case with the pigtail facing up.
- Insert the bobbin case into the rotary hook by aligning the bobbin case with the rotary hook groove.
- Push in the bobbin case slightly and ensure the bobbin case clicks into place.
- Close the bobbin housing unit.

Figure 12: Insert the bobbin case into the rotary hook and secure it with a click.

Bobbin Overview (Cont'd)

Removing the bobbin

Use the following steps when replacing or rewinding the bobbin.

Instructions:

- Open the bobbin housing unit.
- Identify the thread hook. If the thread hook is not forward, then pull it forward. **Note:** Do not pull thread hook beyond its capacity. It only moves to a certain extent.
- Grab the bobbin case by the bobbin case release latch.
- Gently remove the bobbin case from the machine.
- Remove the empty or nearly empty bobbin from the bobbin case and discard or rewind.

Bobbin Overview (Cont'd)

Bobbin Fiber Choice

- Be sure to keep the tails no longer than three (3) inches.
- You might need to adjust the bobbin case, rather than the top tensioner if similar symptoms are exhibited on all needle bars.
- For lightweight threads, the weight is 60, 70 and 80. This specialty thread is used for fine fabrics, small delicate details and small fonts. If you are using this type of thread, increase density slightly by five (5) to ten (10) percent.
- For medium-weight threads, the weight is 30. This specialty thread can be used to fill large embroideries with fewer stitches. If you are using this type of thread, decrease stitch count by 15 percent; it saves production time. In addition, there is weight 35, which is most widely used for multi-color threads.
- For heavyweight threads, the weight is 12. This specialty thread creates the look of hand embroidery. If you are using this type of thread use long, floating stitches. There is special set-up time required for this thread. Adjust tension and needle change to 100 or 110.

Cotton

- Not as strong as its synthetic counterparts
- Friendly texture, which allows for a wider range of adjustments in bobbin tension settings
- Releases lint, which tends to collect under the bobbin tension plate
- Lint build-up can lead to "springing" the tension plate – causing it to fail to hold any tension on the bobbin thread

Nylon

- Very fine nylon, which is still quite strong, and therefore, a bobbin can hold many yards of thin nylon thread
- Small diameter and slick texture, which tends to make consistent tension on bobbin cases

Continuous Filament Polyester

One long filament comprises the thread. These run much cleaner in the bobbin case and are much stronger. There are three (3) different sides of bobbins: (1) Paper sided – the most common; (2) Sideless – all thread with no sides;

Plastic sided – the plastic slides better and runs smoother in the bobbin case.

- Most popular thread amongst embroiderers
- Consistent, strong, thin, and reliable, high-quality thread
- Allows for no slub and no lint
- Allows 127 yards to be held on a standard style "L" bobbin
- Can run a higher tension on both the top and bottom
- More expensive

Bobbin Overview (Cont'd)

Spun Polyester

Fibers are spun together to form a thread. The fibers on this bobbin have a tendency to shear off and usually, collect under the tension spring of the bobbin case. Over time, this may affect your tensions. It is not as strong.

- Texture similar to cotton
- Releases no lint
- Most economical and popular
- Requires less plate pressure
- With tight bobbin tension, can result in a narrow column or even a single strand of bobbin thread down the center of a satin column
- This can cause the embroidery to unravel easily if the bobbin thread snags
- With loosening bobbin, tension will allow bobbin thread to be pulled by the top thread to the top side of the embroidery.
- Even if the bobbin thread stays put on the underside of the work, chances are that columns will not have clean crisp edges
- With erratic bobbin, tension usually results from a catch in the bobbin case

Magna Glide

This type of bobbin has a magnet in the center, which helps keep more consistent tension on the bobbin thread. When using this type of bobbin, a gunmetal colored pieced in the bobbin case, called the brake, might need to be removed.

Thread Overview

Threading the Embroidery Machine - Top Threading

- To complete top threading, please operate carefully. Incorrect threading may cause thread or needle breakage.
- Thread the embroidery machine according to the instructions provided. Begin by following the top threading path as shown below.
- The numbers represent each thread path for each needle.
- When changing the upper thread color, you can cut the thread between the thread spool and the thread guide hole to make re-threading easier.
- Place the new thread spool onto the thread spool pin, tie the new thread to the end of the previous thread, and then guide the thread through the needle path.

Instructions:

- Pull out the thread from thread spool #1.
- Guide the thread through the thread path located behind the metal rack. **See Figure 16**.
- Proceed to guide the thread through the corresponding thread path located in the front of the metal rack (Needle paths 1, 3, 5, 7, and 9 have a back and front needle path. Needles 2,4,6,8,10 only have a front needle path). **See Figure 16**.
- Pass the thread through the thread path on the first tension knob in the row of tension knobs. **See Figure 17**.
- Pass the thread in between the tension plates (found underneath the tension knob) clockwise toward the thread spiral tube. **See Figure 18**.
- Remove the spiral thread tube by unhooking it from both sides.
- Use the metal threader to hook the thread around its hook to help guide the thread through the spiral tube.
- Once the thread has been fed through the spiral tube, unhook it from the threading tool.
- Snap the ends of the plastic tube back into place securely.
- Pull enough thread through the spiral tube to ensure it reaches the needle and presser foot.
- Lay the thread under the metal clip with the blue circle. **See Figure 19**.
- Begin to follow the raised lines on the machine. To identify the raised lines, **See Figure 19**.
- When you reach the tension knob, insert the thread between the tension plates and wrap the thread around the tension knob one and a half times in a clockwise direction. **See Figure 20**.
- Continue the thread to the lower metal clip with the blue circle. Place the thread underneath the clip so the thread stays in place.
- Pull the thread down through the first divider, loop it around the bottom of the divider, and then bring it back up. **See Figure 21**.
- Pass the thread through the take-up level path, from the right to the left. **See Figure 21**.
- Take the thread back down and pull it through the bottom path towards the needle and presser foot.
- Repeat these steps to thread all 10 needles properly. Once you have completed those steps, refer to the “Threading a Needle” section to finish.

Thread Overview (Cont'd)

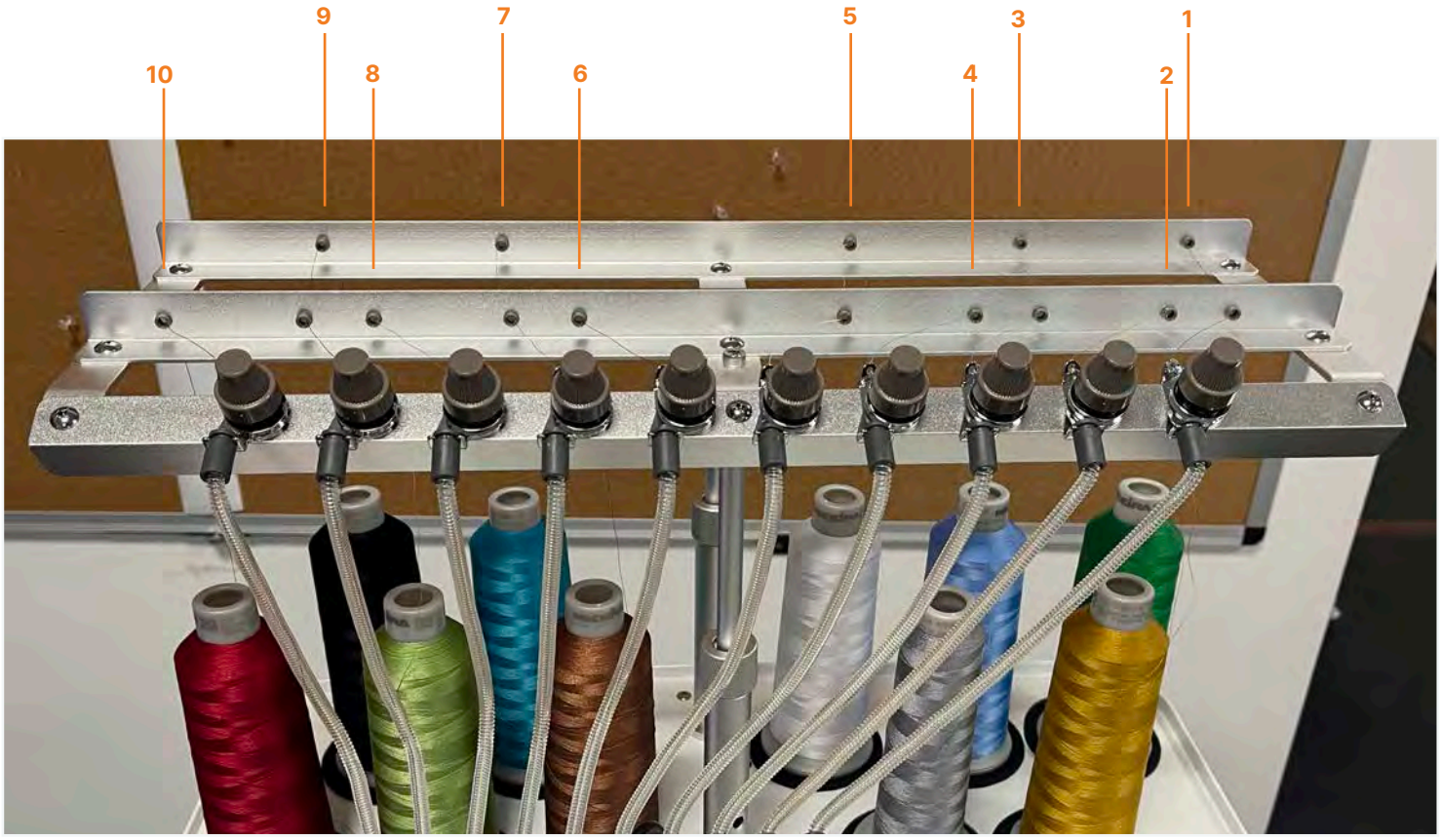


Figure 13: Pass the thread through the thread path located in the front and back of the metal thread rack. (Needle paths 1, 3, 5, 7, and 9 have a back and front needle path. Needles 2,4,6,8,10 only have a front needle path).

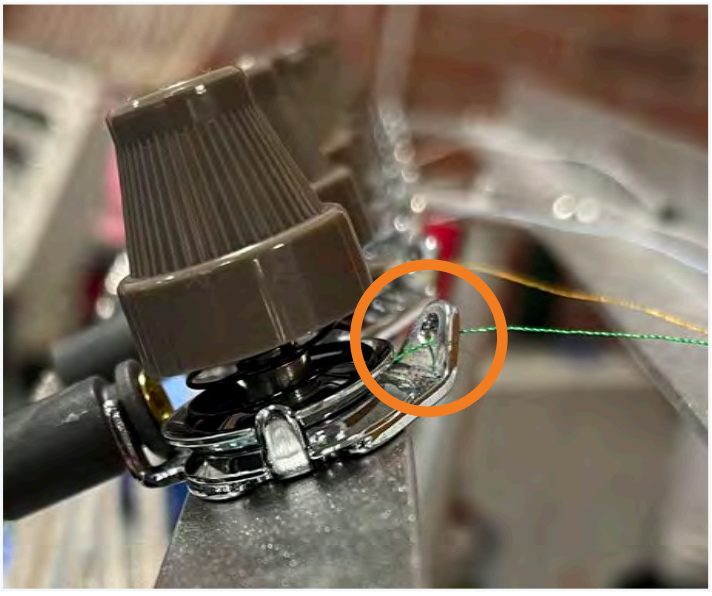


Figure 14: Pass the thread through the path located above the tension knob.

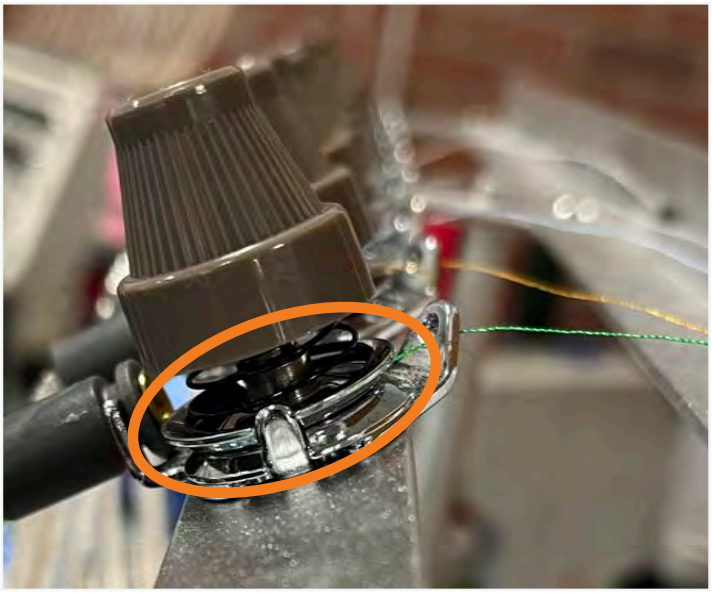


Figure 15: Pass the thread between and under the tension plate under the tension knob.

Thread Overview (Cont'd)

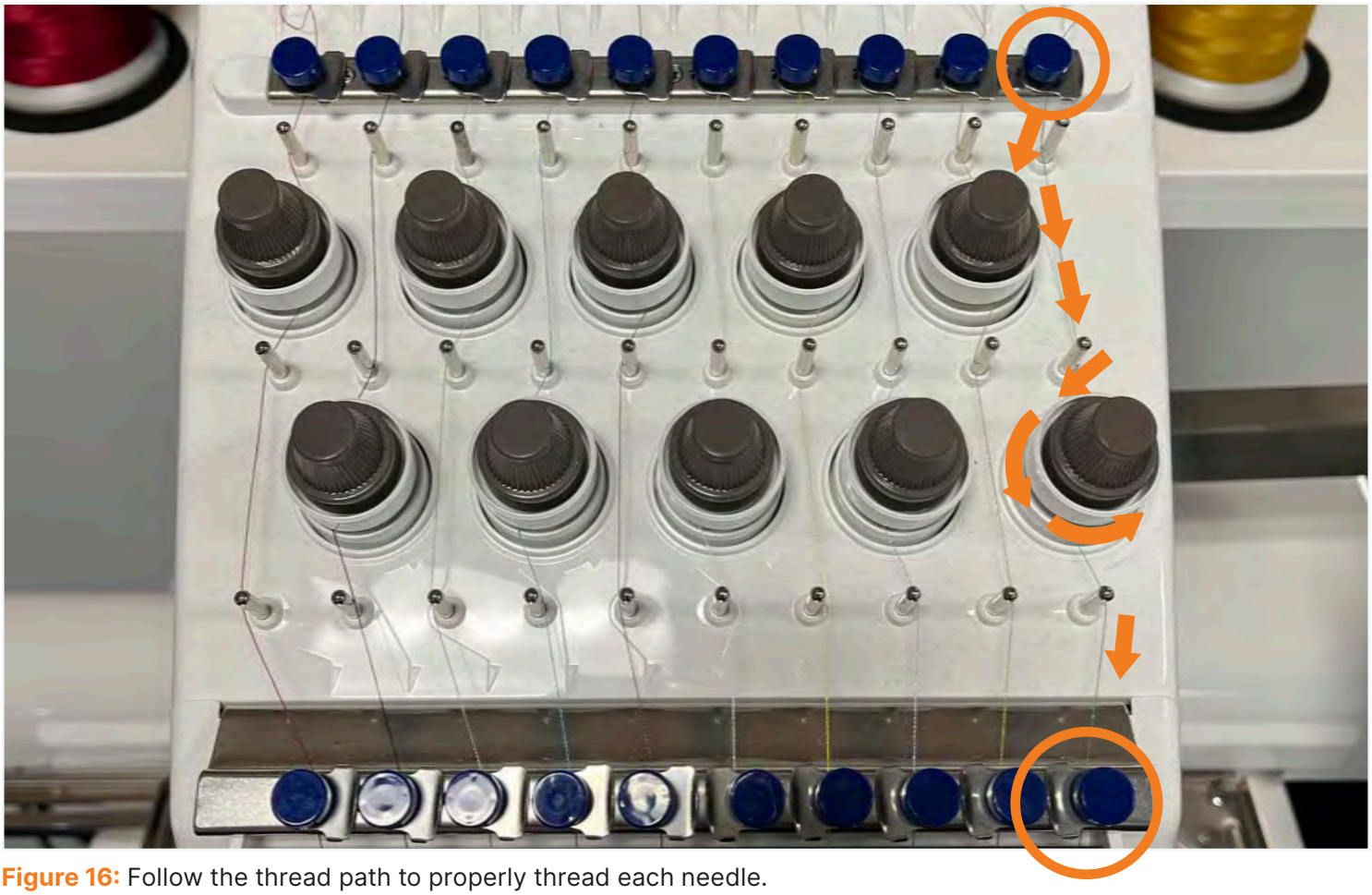


Figure 16: Follow the thread path to properly thread each needle.

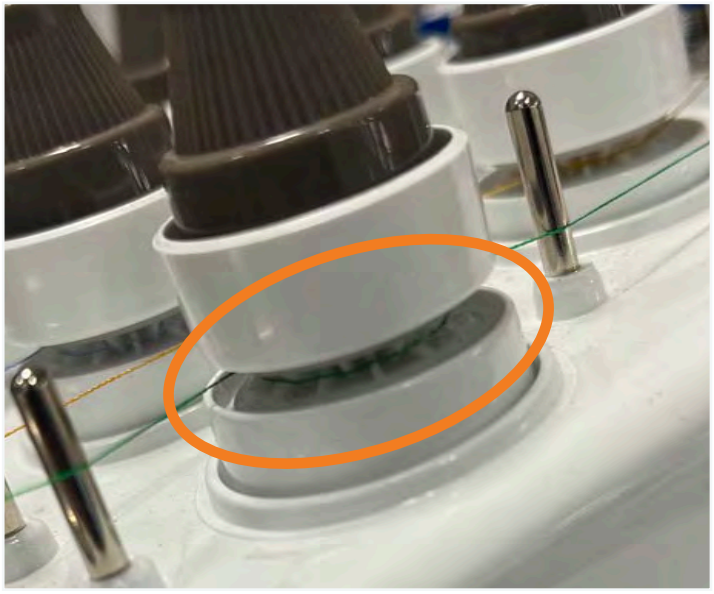


Figure 17: The tension knob has plates that hold the thread, and it should spin properly when the machine is running, provided the thread is correctly threaded.

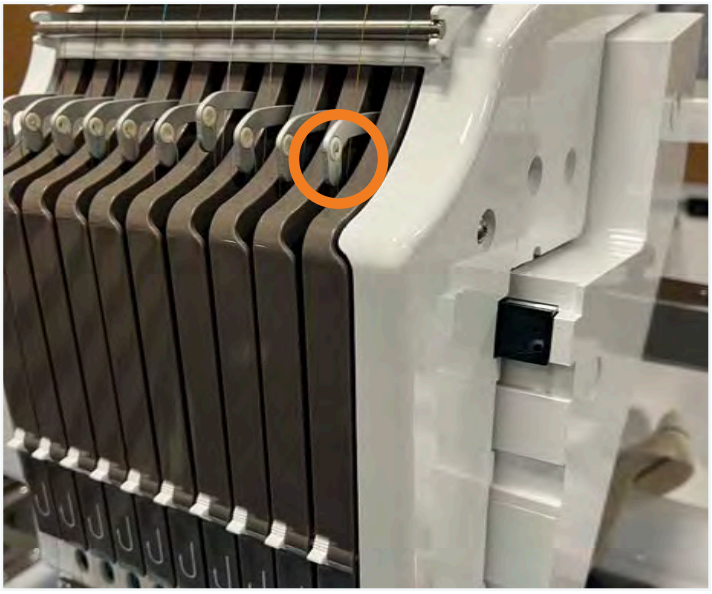


Figure 18: Guide the thread down through the first divider, loop it, bring it back up, and pass it through the take-up lever from right to left.

Thread Overview (Cont'd)

Threading a Needle

Instructions:

- Pass the thread behind the thread hook.
- Feed the thread through the needle, from the front to the back.
- Proceed guiding the thread through the presser foot.
- Pull the thread up and around the bottom thread course, from the left to the right.
- The extra thread will be cut.

Figure 19: Hook the thread behind the thread hook, feed it through the needle front to back, and guide it through the presser foot.

Thread Overview (Cont'd)

Changing the Thread Spool

Instructions:

- Cut the thread from an existing spool.
- Place a new spool in its place.
- Unravel the thread from the spool.
- Attach the loose end of the new thread to the loose end of the old thread, creating a knot.
- Grab the thread from the presser foot, and pull the new thread all the way through until it reaches the needle.
- Pull through a little more to allow the extra thread to hang.

If the knot does not make it past the needle, cut the thread and try passing it through the needle and presser foot again.

Knot Tying

- Use a knot that will pull easily through the needle's eye.
- The best knots are the square knot and the weaver's knot.

Trimming

- Locate the icon that displays the scissors icon.
- Press the scissors icon button.
- Watch your embroidery machine trim the thread.

Thread Fiber Choice

- Lightweight threads are used for fine fabrics, small and delicate details and small fonts. The standard weight for lightweight threads is 60, 70 and 80.
- If this type of thread is being used – increase density slightly by five (5) to ten (10) percent.
- Mediumweight threads are used to fill large embroideries with fewer stitches. The weight of a mediumweight thread is 30.
- If this type of thread is being used – decrease stitch count by 15 percent.
- Multi-color threads of medium weight have a weight of 35 (35 is the most widely used).
- Heavyweight threads are used to create the look of hand embroidery. The weight for heavyweight thread is 12.
    - If this type of thread is being used:
        - Use long floating stitches
        - Perform tension adjustment around 100-110 stitches
        - Perform needle change around 100-110 stitches
        - A special set-up time is required

Thread Overview (Cont'd)

Rayon Thread

- Available in sizes 30, 40 and 60
- Widely used by U.S. embroiderers
- More expensive than other fibers
- Beautiful, supple, friendly fiber
- Natural fiber made from cellulose
- Not one of the stronger fibers
- Handling properties are superior to other fibers
- Used for embroidery thread and looks very rich when sewn into fabric
- Slight equipment problems can cause an unacceptable number of thread breaks when using
- Susceptible to damage by environmental factors, such as light, heat and cold
- Black and white tend to break more frequently due to the bleaching and dying processes

Polyester Thread

- Excellent sewing ability
- Good choice for embroiderers
- May be too strong for certain lightweight, delicate goods
- Strong resistance to thread breaks, which can aid in production efficiency
- Can accept neon dyestuffs
- Excellent resistance to abrasion and bleaching
- Good choice for items that will be subjected to sunlight, chlorine or harsh laundering
- Polyester is stiffer than rayon, and it may require some tension or spring adjustment

Metallic Thread

- Stiffer than other varieties with an interesting construction
- Metallic film glued to a nylon or polyester core
- Quality varies widely among manufacturers
    - If you have experienced difficulty in sewing with a metallic thread, try:
        - Using a smaller size metallic
        - Using a larger eye needle
        - Thread the metallic through the packing peanut attached to your thread tree
        - Check programming
        - Check density
        - Check stitch lengths

Thread Overview (Cont'd)

Cotton Thread

- Easy to adjust tensions
- Matte finish that is sometimes preferred to the shiny look of the other thread types
- Available in a broad range of sizes from very large to very fine

Thread Consumption

How much thread will you need for a particular job?

- Thread consumption varies according to the type of stitch.
- Longer stitch lengths use more top thread than fill stitches.
- A 5,000-yard cone yields about 9,000,000 stitches.
- Bobbin thread yield is about 25,000 to 30,000 stitches per bobbin for style "L."
- The amount of yards per bobbin varies according to thread type.

Backing

- Used as stabilizer
- Foundation for a good embroidery
- Designed to support or even replace the fabric
- Helps hold the fabric as flat as possible to prevent distortion in the embroidery
- Different types of backings/stabilizers are used in embroidery
- The correct backing depends on the fabric being used
  - Heavyweight garments – use thin backing
  - Lightweight garments – use thick backing
- Comes in the color black or white
  - White is the most common and is used on most embroidery
  - Black is sometimes used on darker garments, especially if there is any chance the backing might be seen or bleed through, such as on pique knit shirts
- Comes rolled or pre-cut
  - Rolls are usually used on larger sewing areas
  - Pre-cut backing is more convenient for left chest type logos
- Backing comes in different weights. Choose the weight of the backing based on how much you need to stabilize the fabric. The goal is to eliminate the stretch. The more the garment stretches, the heavier the backing needs to be.
  - 1 oz. to 1.5 oz. – Lightweight
  - 2 oz. to 2.75 oz. – Mediumweight
  - 3 oz. to 3.5 oz. – Heavyweight

There are three (3) things you need to consider when choosing backing:

- Stability of fabric:
  - Stretchy or loose fabrics require a heavy backing
  - Stable and tight woven fabrics require a light or medium backing
- Stitch density:
  - Higher density fabrics require heavier backing
- Washability:
  - Fabric washed frequently requires a heavy backing
  - Backing becomes softer after several washes

Backing (Cont'd)

Cut-away

- Weights range from 1 oz. (light) to 3.75 oz. (heavy)
- Used for permanent support – remains permanently affixed to the fabric – excess is cut away with scissors
- Provides the most stability
- Heat set fusible
- Offers the sharpest embroidery on highly detailed designs that include small lettering
- Used on loosely woven and unconstructed caps
- Best used on knits, since it prevents the design from stretching out with frequent washing or wearing
- When choosing cut-away:
  - Lightweight for a design with a light stitch density
  - Heavyweight for dense designs

Tear-away

- Light support
- Comes in light to heavy weights
- Backing is removed by tearing off
- Use several layers of light to mediumweight backing for support
- Best used on firmly woven, natural-fiber fabrics
- Recommended for strong and stable fabrics, or for when you do not want the backing to show on the back, such as the backs of towels, caps, and bags
- Easier to remove one sheet at the time than using a heavier tear-away and trying to remove it

Specialty Backing

- Poly mesh/No show
  - A lightweight woven cut-away that is soft, thin and strong
  - Designed to provide extra stability on knit shirts
  - Does not show through light color garments
  - Used on low stitch count designs on polos and T-shirts
  - Combine a no-show backing with a tear-away
  - Removable with water or with heat

Backing (Cont'd)

Topping

- A plastic film used on the top side of an embroidered item to prevent stitches from shrinking into textured fabrics
- Used for temporary support
- Used on delicate, mesh-like and difficult to mark fabrics like pique, fleece or corduroy
- Requires the use of backing on the back of the fabric to support your fabric
- To remove the plastic film, tear-away the topping or use water

Foam

- Adds dimension to lettering on caps for a 3D effect
- Available in a variety of colors
- Available in 2 mm and 3 mm sheets
- Laid on top of the area that will be dimensional and then stitched over with a column fill that uses short stitches to cut the foam
- Excess foam needs to be removed
- Pieces that remain can be easily eliminated by applying a hot hair dryer over the area

Poly Mesh Backing

- Extremely thin backing that is extremely strong due to its fibers
- Used to add a lot of stability, without the bulk of a heavyweight cut-away backing
- Great for the newer tech garments that are very thin and contain fluidity to the fabric
- Adds stability without running the movement of the garment
- If needed, use two pieces of poly mesh on a stretchy material

Fusible Backing

- Used on stretchy materials
- Once fused to the garment, the garment and the backing become one
- Stable material
- Cover up a finished piece of embroidery, such as an infant's onesie, where the stitches and the backing could irritate the baby's skin

Backing and Needle Recommendations

- Canvas
  - Use a light to medium tear-away. Sharp needles are better for longer runs. We recommend using a 75/11 sharp or normal round point needle.
- Canton fleece
  - Use light tear-away polyester backing to maintain colorfast-ness if a garment is subjected to extensive sunlight, chlorine, salt water or industrial laundering and bleaching. We recommend using a 75/11 light ball-point needle.
- Coated or waterproof
  - Use a light to heavy tear-away backing. We recommend using a 75/11, 80/12 sharp or light ballpoint needle.
- Corduroy
  - Use a medium topping and light to medium tear-away. We recommend using a 75/11 light ballpoint needle.
- Cotton sheeting
  - Use a heavy cut-away or tear-away/wash-away. Great for children's clothing. We recommend using a 75/11 light ballpoint needle.
- Denim
  - Use a heavy cut-away or tear-away/wash-away. We recommend using a 75/11 light ballpoint needle.
- Dress shirt (woven)
  - Use a heavy cut-away or tear-away/wash-away. We recommend using a 75/11 or 70/10 light ballpoint or 80/12 needles for small details.
- Golf shirt
  - Use a light to heavy cut-away. Heavy knits require a medium to heavy cut-away; medium knits require a light cut-away. We recommend using a 75/11 light ballpoint needle.
- Headwear
  - Use a medium to heavy tear-away. We recommend using a 75/11 or 80/12 sharp needle.
- Leather and vinyl
  - Use a light tear-away. We recommend using a 75/11 or 80/12 light ballpoint needle on stiff or spongy leather (upholstery luggage). We recommend using a 70/10 or 80/12 sharp needle on soft, supple garment leather.
- Lingerie or silk
  - Use a water-soluble tear-away backing. We recommend using a 70/10 light ballpoint needle or 80/12 nee-dle depending on the thread.
- Lycra or spandex
  - Use a medium cut-away or water-soluble tear-away. We recommend using a 70/10 medium ballpoint nee-dle.
- Nylon windbreaker
  - Use a light to heavy cut-away. We recommend using a 75/11 light ballpoint needle.

Backing and Needle Recommendations (Cont'd)

- Satin jacket
  - Use a light to heavy cut-away. Cotton-on-cotton is a nice look. We recommend using a 75/11 light ballpoint needle.
- Sweater knit
  - Use a medium to heavy cut-away. We recommend using a 75/11 light ballpoint needle.
- Sweatshirt
  - Use a heavy tear-away or cut-away. We recommend using a 75/11 light ballpoint needle.
- T-shirt
  - Use a light, water-soluble tear-away or medium cut-away. We recommend using a 75/11 light ballpoint needle.
- Terry cloth
  - Use a medium-weight, water-soluble tear-away and topping. We recommend using a 75/11 or 80/12 light ballpoint needle.

Before You Get Started

- Ensure the temperature of the environment surrounding the machine is in between the 40°F – 104°F (5°C – 40°C).
- In the case of lighting, ensure to turn-off the embroidery machine.
- Set up the embroidery machine near a electrical outlet.
- Keep the machine free of dust.
- Do not keep liquid near the embroidery machine.
- Ensure all packaging materials have been removed.
- Ensure all base feet are at the same height.
- Ensure all base feet are locked.
- Exercise caution when removing parts.
- Do not plug the embroidery machine into the socket until the machine is set-up and ready to begin.
- Wear glasses and gloves when lubricating the embroidery machine.
- Do not block the ventilation of the embroidery machine.
- Ensure the embroidery machine is not in direct sunlight.
- Set the embroidery machine two inches (2”) away from the wall.
- Lift the embroidery machine with at least two people.
- Lift the embroidery machine from its base – ONLY.
- Ensure there are no objects underneath the embroidery machine.
- Ensure there are no objects within the moving range of the embroidery machine.
- Set the embroidery machine on a leveled, balanced and durable surface.

Getting Started

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

- The main power switch is located on the back of the embroidery machine.
- The “O” icon turns the embroidery machine OFF.
- The “I” icon turns the embroidery machine ON.
- Once the embroidery machine is turned on, the needle bar rack will automatically move to the position of the number five needle bar.

Turning on

- Insert the power cord into the back of the embroidery machine.
  - Connect power supply cord to an electrical outlet.
- A surge protector is highly recommended.
- Move the main power switch on to “I.”
  - The needle bar rack will automatically move to the position of needle bar #5.
  - The LCD will turn on.

Turning off

To prevent injury, always ensure the embroidery machine is turned off when not in use. If a power outage occurs while the embroidery machine is in operation, follow steps one (1) and two (2) outlined below.

- Move the main power switch to “O.”
- Disconnect the power supply cord from the electrical outlet.
- Disconnect the power supply cord from the embroidery machine.

Embroidery Hoop and Arm Brackets Frame Support

- The embroidery machine comes with five (5) embroidery hoops and a cap attachment.
- The flat frame support is connected by two (2) screws to the embroidery machine and is resizable in order to adjust to the five (5) different embroidery hoop sizes.
- The embroidery hoops are categorized from A-E with A being the smallest and E being the largest.
- Each embroidery hoop comes with a screw to adjust the sizing on the outer ring, except for the largest embroidery hoop D and hoop E, which has two (2) screws on the outer ring.

Arm Brackets Frame: Adjustable

Hoop A: Size 2.7” x 1.9”

Hoop B: Size 4.3” x 4.3”

Hoop C: Size 7.4” x 5.5”

Hoop D: Size 12.2” x 8.2”

Hoop E: Size 14.9” x 8.2”

Arm Brackets Frame Installation

- Install the arm brackets frame support by aligning the embroidery frame hole with the dowel on the connecting plate.
- Secure the arm brackets frame support to the embroidery frame connecting plate with the two (2) M4×8 screws provided.

Arm Brackets Frame Installation

- Install the arm brackets frame support by aligning the embroidery frame hole with the dowel on the connecting plate.
- Secure the arm brackets frame support to the embroidery frame connecting plate with the two (2) M4×8 screws provided.

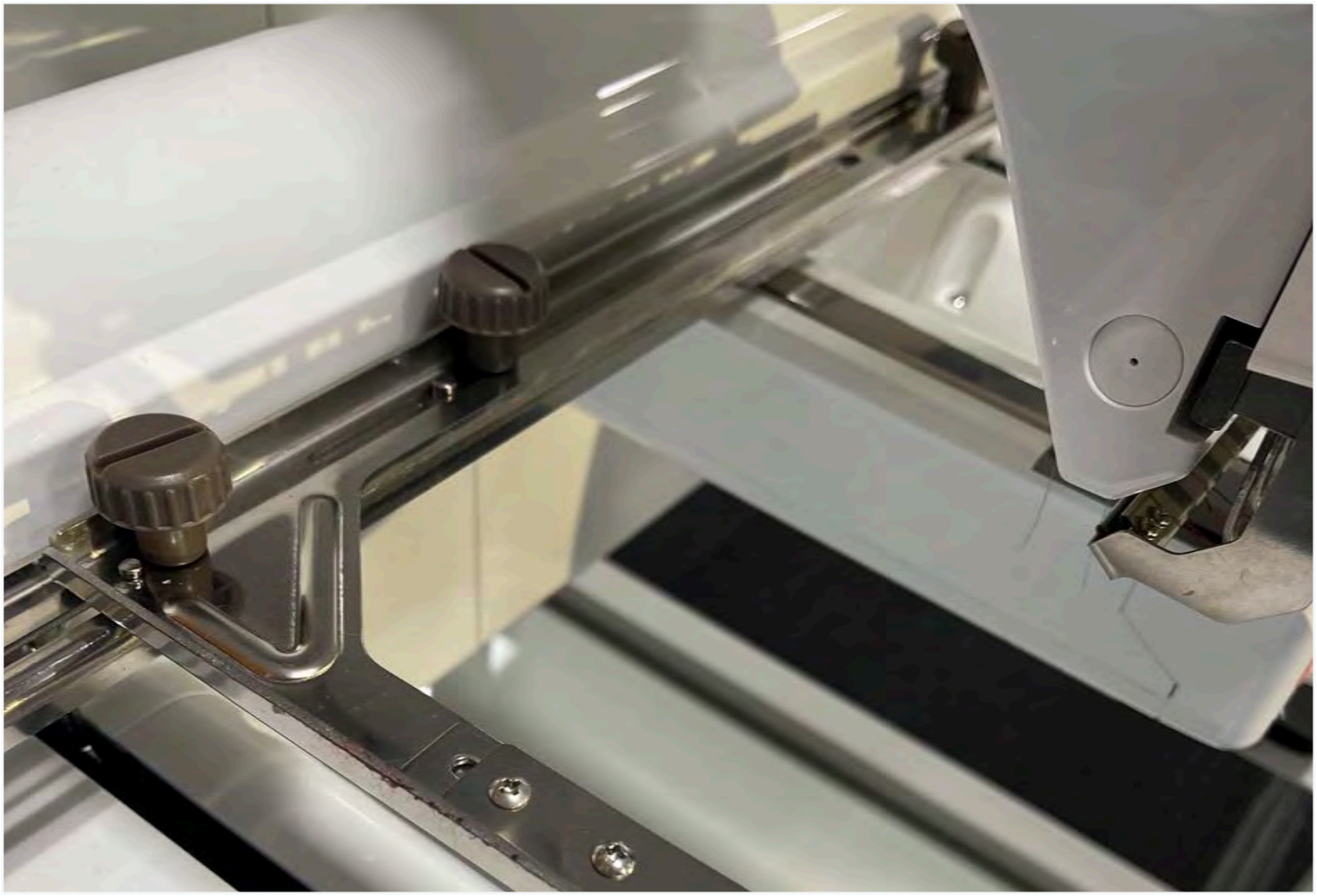


Figure 20: The arm bracket frame installed on the Creator machine.

Installing Embroidery Hoop and Adjusting Arm Brackets Frame

If the embroidery frame is not correctly installed, it may interfere with the presser foot, damage the embroidery machine, or even cause personal injury. Before installing the frame, ensure there is sufficient thread inside the bobbin. Each frame is adjusted individually to fit its corresponding embroidery hoop, with the left arm of the frame moving to the right as needed for proper alignment. Additionally, take care to ensure that the flat frame support does not collide with the 10-needle bar rack or any other part of the embroidery machine.

- Select the embroidery hoop that will be in use.
- In order to adjust the flat frame support to the frame embroidery hoop, loosen the two (2) screws by turning them counterclockwise.
  Note: Do not remove the screws.
- Adjust the width of the arm brackets frame to the embroidery hoop by pushing it inward or outward.
- Retighten the two (2) screws by turning them clockwise in order to secure the arm brackets frame.
- Grab the desired embroidery hoop. See the arm brackets frame section for embroidery hoop details.
- Align the left and right side by pushing both sides in simultaneously until the embroidery hoop locks in place.
- Insert the frame embroidery hoop into the arm brackets frame.
- Click the frame embroidery hoop into the arm brackets frame.
- Ensure that the notch of the embroidery hoop connects securely to the pin on the arm brackets frame.
  - Hoop A: Left arm of embroidery frame moves rightward to the innermost side
  - Hoop B: Left arm of embroidery frame moves rightward to the 3rd stuck point
  - Hoop C: Left arm of embroidery frame moves rightward to the 2nd stuck-point
  - Hoop D: Left arm of embroidery frame moves to the leftmost side
  - Hoop E: Left arm of embroidery frame moves to the leftmost side

Figure 21: Left hoop handle clipped into the left arm bracket.

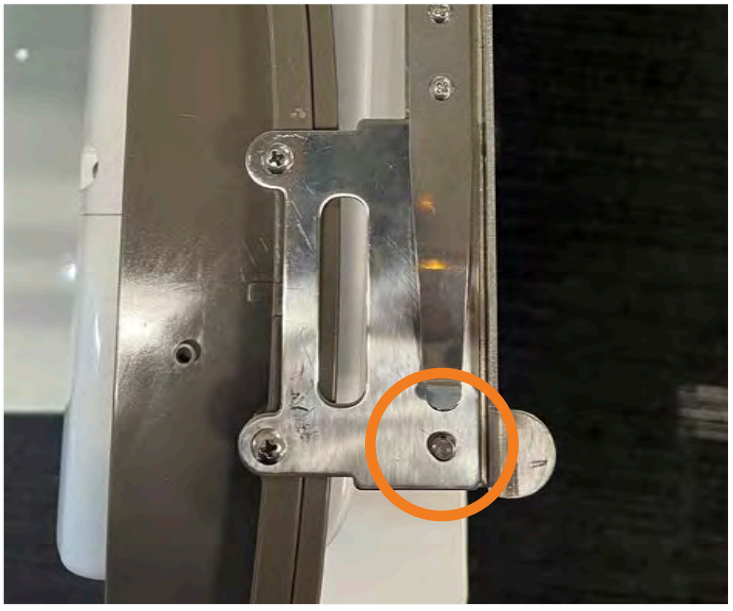


Figure 22: Right hoop handle clipped into the right arm bracket.

Hooping Fabric

- Place the embroidery hoop on a flat level surface.
- Loosen the screw or screws (if the hoop has two) on the outside of the hoop.
- Lift and remove internal hoop.
- Place your fabric side up on the hoop.
- Ensure the fabric is stretched out.
- Place the external hoop on top of the fabric so the internal and external part of the hoop are together as one hoop with the fabric tight between.
- Slightly tighten the two (2) screws on the outside of the hoop and pullout the cloth edges.
- Finish tightening the two (2) screws on the outside of the hoop.
- Make sure the fabric is stretched out and tight without any wrinkles.
- Gently tap the fabric—if it's tight enough, it should produce a drum-like sound.

Removing the Hoop

- Grab both sides of the flat frame support from the bottom.
- Push up the frame by using the levers.
- Release the frame from the brackets.
- Slide the embroidery hoop back towards yourself.

Removing the Arm Brackets Frame

Ensure the embroidery machine has completely stopped running before removing the flat frame support. Once removed, keep the flat frame support away from any part of the embroidery machine to prevent interference or damage. Additionally, avoid raising the flat frame support to ensure it remains intact and undamaged.

- Remove the screw on the right side of the support.
- Remove the screw on the left.
- Pull the flat frame support up and release.

Caps Overview

Cap Driver Installation

Tools & Parts

- Cap driver
- (2) 4” x 8” screws
- 1 screwdriver

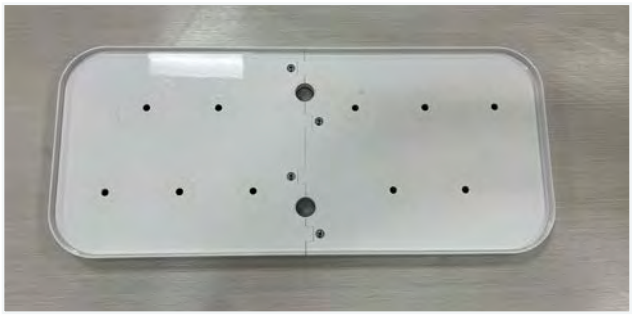


Figure 23: Front view of the thread stand with the screws fully inserted and secured.

Instructions:

- Remove the bracket frame support. See the Removing the bracket frame support section.
- Position the cap driver in-line with the railing (located on the bottom of the sewing arm of your embroidery machine).
- Align all four (4) wheels.
- 4Push the cap driver toward the back of the embroidery machine.
- Align the two (2) sets of holes.
- Connect the inner hole of the set of holes with the metal stubs.
- Match the outer holes of the set of holes.
- Insert and tighten each screw.
- Ensure the cap driver is tightly secured.

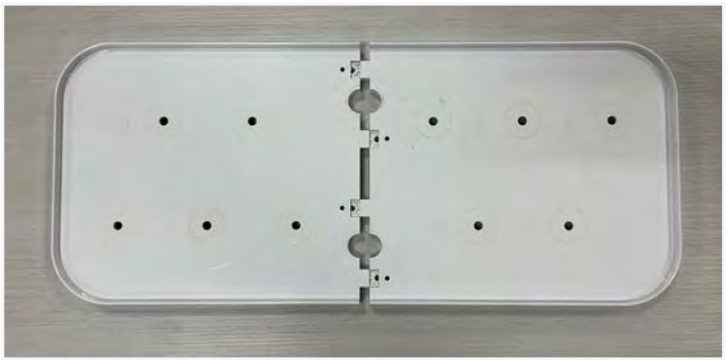


Figure 24: Front view of the thread stand prior to attaching plates 1 and 2.

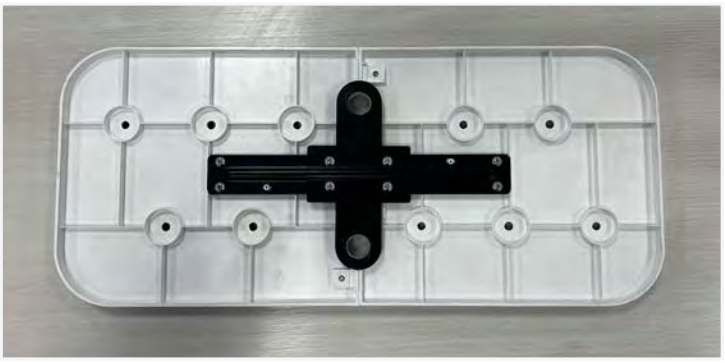


Figure 25: Back view of the thread stand showing the placement and securing points of the cross-shaped reinforcement plates.

Caps Overview (Cont'd)

Cap Station Installation

- Select a location to clamp your cap station onto.
- Twist the knob counterclockwise to separate the knob from the cap station device.
- Ensure enough room is available to fit the width of your desired location.
- Slide the cap station onto your desired location.
- Twist the knob clockwise to tighten the grip of the cap station to the desired location.
- Ensure the cap station is securely attached to the desired location.

Cap Hooping Station Installation

- Take the cap ring and connect the open metal notch to the center tab on the cap station.
- Slide and push the cap ring forward.
- Ensure all three (3) spring locks are connected.
- Unfasten the flexible metal band and position it to the left of the cap ring.
- Pull back the sweatband of the cap.
- Place the backing below the metal tab.
- Slide in the sweatband between the metal tab and the backing.
- Ensure extra fabric is out of the way.
- Position the flexible metal band back over the cap's bill.
- The flexible metal band is made up of two (2) edges: a smooth edge, closest to the embroidery machine and a serrated edge, closest to you.
- Place the smooth edge under the metal tab of the cap station.
- Connect the clasp to the cap ring latch and snap it into place.
- To remove from the cap station, release the three (3) latches positioned at 1 o'clock, 11 o'clock and 7 o'clock.

Cap Installation

- Rotate the cap 90 degrees to either the left or right.
- Push forward onto the sewing arm until the cap embroidery hoop ring connects to the cap driver.
- Rotate the cap back into an upward position with the bill facing upwards.
- Align the center metal tab on the cap driver with the metal opening of the cap ring.
- Grab the cap driver from the back.
- Slide and push the cap ring forward.
- Ensure all three (3) spring locks are connected.

Caps Overview (Cont'd)

Cap Hoop Removal

- Release the three (3) latches positioned at 1 o'clock, 11 o'clock and 7 o'clock.
- Rotate the cap 90 degrees to either the left or right.
- Slide the cap embroidery hoop away from the embroidery machine.

Cap Driver Removal

- Untighten and remove each screw.
- Disengage the cap driver from its connection to the metal stubs.
- Slide the cap driver away from the embroidery machine.

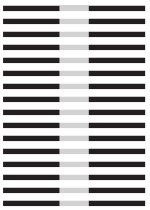
Tension

Proper tension on your embroidery machine is crucial for reducing thread breaks and ensuring smooth operation. While tension settings can vary depending on the thread manufacturer, there are general guidelines that apply to all brands, making it important to adjust the tension appropriately for the specific thread you are using.

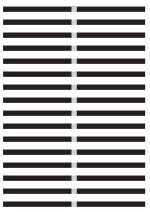
- Polyester threads would require nearly twice the amount of tension as rayon.
- Depending on the type of thread, tension knobs will require adjustment. See the Tension knobs section for more information.
- Thread color dyes affect the texture of the thread, which can affect how smoothly it slides through the embroidery machine.
- If you change the weight of the thread, tension will require adjustment.
- Embroidery machine speed may affect tension – the slower the speed, the better the quality.
- Excess dust and lint along the thread path can affect thread tension.

Check Thread Tension

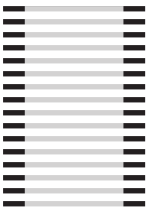
- The tension of the bobbin case affects the stitching that comes from every needle bar. Ideally, the bobbin tension setting will produce a one-third (1/3) bobbin thread running exactly down the center of the column, with one-third (1/3) top thread running down each side.
- You may see the bottom thread from the top side of the cloth when the top thread tension is too tight.
- You may see thread circle when the top thread tension is too loose.
- Under normal use, the user should temporarily stop the embroidery machine and check thread tension after the first 100 stitches of each color.
- Because of different types or thicknesses of cloth or backing being used, embroidery results may be different from what is expected; ensure to make samples before mass production.



Balanced Tension



Too Little Tension



Too Much Tension

Instructions:

- Turn your design over to view the backside of the embroidery pattern.
- Identify if the bobbin thread is one-third (1/3) of the stitch length.
- If the bobbin thread is more or less than one-third (1/3) of the stitch length, adjust the bobbin thread tension. See the Bobbin tension section for more information.

Tension (Cont'd)

Tension Knobs

Each embroidery design may require different tension settings to achieve the best results. To find the ideal tension, experiment by making small quarter (1/4) turns to fine-tune the settings until you are satisfied with the outcome. The EM-1010 allows you to adjust the tension even while it is running, making it easier to refine your settings without interrupting the embroidery process.

- To have a great quality design make the following adjustments, if needed.
- For metallic and polyester threads, turn the tension knob counterclockwise one (1) time.
- For light color rayon threads, turn the tension knob counterclockwise one to two (1-2) times.
- For white rayon thread, turn the tension knob counterclockwise one (1-2) times.
- For medium color rayon threads, turn the tension knob counterclockwise one to two (1-2) times.
- For dark color rayon threads, turn the tension knob counterclockwise two to three (2-3) times.
- For black rayon thread, turn the tension knob counterclockwise three (3) times.

Adjusting Thread Tension

- Rotate the tension knob clockwise to tighten the tension.
- Rotate the tension knob counterclockwise to loosen the tension.

Bobbin Tension

- To adjust the bobbin, there is a bobbin tension adjusting screw on the bobbin case.
- The tension on the bobbin case affects the stitching that comes from each needle bar.
- The most widely accepted tension test: sewing a one inch (1 in.) tall satin column, then examine the reverse side.
- The bobbin tension setting should be one-third (1/3) bobbin thread running exactly down the center of the column, with one-third (1/3) top thread running down each side.
- The amount of tension required depends on the thread type.
- Poly threads require nearly twice the amount of tension as rayon threads.
- When stitching onto caps, thick materials or using small lettering, the bobbin tension may need to be tightened slightly.
- Only one-third (1/3) of the bobbin thread should be visible down the middle of the column on the back of the embroidery.
- If a small amount of the bobbin thread is visible, tighten the upper tension knob slightly by turning the knob clockwise.
- If a large amount of the bobbin thread is visible, loosen the upper tension slightly by turning the tension knob counterclockwise.

Tension (Cont'd)

Bobbin Tension (Cont'd)

- The top tension knobs will need to be adjusted depending on the thread type and color.
  - For metallic and polyester threads, rotate the top tension knob zero to one (0-1) turns counterclockwise.
  - For light-colored rayon threads, rotate the top tension knob one to two (1-2) turns counterclockwise.
  - For white rayon threads, rotate the top tension knob one (1) turn counterclockwise.
  - For medium-colored rayon threads, rotate the top tension knob one and a half to two and a half (1.5-2.5) turns counterclockwise.
  - For dark-colored rayon thread, rotate the top tension knob two to three (2-3) turns counterclockwise.
  - For black rayon thread, rotate the top tension knob three (3) turns counterclockwise.

Needles

Anatomy of a Needle

- Shank: the top part of the needle that goes into the needle bar (into the machine).
- Shaft/blade: the part of the needle from the bottom of the shank, down to the top of the needle.
- Taper: the part of the needle below the eye.
- Point: the part of the needle found opposite to the shank and the first part to penetrate the fabric
- Eye: the area where the thread passes through the needle.
- Groove/thread groove/front groove: the groove that runs from the top to the bottom, along the face (front) of the needle.
- Scarf: the half-moon cut out on the back of the needle, just above the eye, where the rotary hook passes behind the needle.

Needle Lifetime

Many variables will determine how long a needle will last. The lifetime of a needle depends on which material the needle is made from, point type and the type of material being sewn on.

When to Change a Needle

Many variables will determine how long a needle will last. The lifetime of a needle depends on which material the needle is made from, point type and the type of material being sewn on.

Selecting a Needle

- Choose the right needle to ensure quality stitches. Embroidering with a needle that is too small or too big for the thread and fabric can result in thread breaks or even skipped stitches. There are three (3) things to consider when choosing the right needle for the job:
  - Finish
  - Size
  - Point
- DBxK5 is an established standard system for embroidery machines. It is a medium point needle with a larger eye that allows a smoother flow of thread through the eye of the needle. It is slightly less durable due to thinner eye wall. Since the eye of the needle is larger, there are fewer thread breaks. Use ballpoints for stretch materials; use sharps for cotton.
- DBx7ST is ideal for metallic threads. It has an extremely large rectangular eye that allows easy passage of thread.

Needles (Cont'd)

Needle Size

- Choose a finer needle size for delicate woven or knitted fabrics, and a larger needle size for tough fabrics that might cause needle deflection.
- The needle must penetrate the fabric smoothly to avoid deflection, which could result in the needle striking surrounding metal parts or misaligning with the needle plate.
- Needle sizes are identified using a two-number system that combines European and Asian designations.
- The first number, such as 65 or 80, is the European designation and refers to the actual diameter of the needle shaft in hundredths of a millimeter.
- The second number, such as 11 or 14, is the Asian system, previously used by Singer, where a smaller number indicates a smaller needle diameter.
- Size 75/11: Good overall needle. It is used to sew everyday items like golf shirts, sweatshirts, dress shirts, light jackets, lighter canvas, aprons, holiday's stockings, etc.
- Size 70/10: Good needle for the newer tech garments. It is used to sew moisture management (wicking), antibacterial, body temp management type garments, especially t-shirts and golf shirts.
- Size 65/9 or 60/8: Good needles for very light/delicate materials. They are used to sew silks or fine linens. Also, used to get the stitches closer together, such as when you might sew extremely detailed designs like a detailed patch or small lettering.
- Size 80/12: Good needle for heavier materials. Used to sew heavy canvases, vinyl, lighter leathers, ball caps, visors, etc.
- Size 90/14: Good needle for metallic thread. It has a larger eye. Used to sew canvases and belts, since it is a very stiff needle.

Needle Finishes

- Most sewing and embroidery needles have a chromium plating to enhance durability and appearance.
- Titanium coated needles are more expensive than chromium-plated needles, but they can last as much as five (5) to seven (7) times longer than chromium-plated counterparts. They also reduce friction on the thread, which could save time, labor and reduce the frequency of thread breaks.
- Titanium needles are a golden color and are available in popular sizes.

Needles (Cont'd)

Needle and Thread Ranges

Needle Sizes			Thread Sizes			
USA	Japan	Germany	Cotton	Silk	Nylon	Rayon
0.25	9	65	70-80	100-120	130-150	70-100
0.27	10	70				
0.29	11	75	50-60	80-100	100-130	100-130
0.32	12	80				
0.34	13	85	50-60	60-70	80-100	130-150
0.36	14	90				

Needle Point Types

Using the correct needle point type is essential to avoid fabric damage and ensure clean penetration across different fabric types. It is always best to use the smallest possible needle to create the smallest hole while maintaining effective stitching. However, heavy materials can cause the needle to bend or deflect, leading to issues such as needle breaks, thread breaks, missed stitches, and other problems. To control needle deflection, reduce the speed of the machine and/or switch to a larger needle size that can handle the material more effectively.

- Acute round point
  - Used primarily on woven fabrics.
  - Sharp point needle (SPI).
- Slender sharp point
  - Used to penetrate high thread count fabrics, microfibers and certain synthetics
  - Normal round point (R).
- Normal sharp point
  - Used for woven fabrics, including finished caps.
- Light ballpoint
  - Designed to spread yarn in knitted fabrics rather than piercing them to maintain the structural integrity of the knit. This is the most popular needle type and is considered a universal point type, suitable for most knit and woven fabrics.
  - Light ballpoint (SES).
- Medium ballpoint
  - Designed to spread heavy yarns such as those used in heavy knitted fabrics.
  - Two (2) primary point types used for sewing and embroidering: sharp point and light ballpoint.
  - Medium ballpoint (SUK).

Needles (Cont'd)

Needle Replacement

To maintain optimal performance and safety, always discard old needles in a sharp-safe container. A common guideline among professional embroiderers is the "three strikes" rule: if a needle causes three consecutive thread breaks, it's time to replace it. Additionally, ensure the scarf of the needle is correctly positioned to face the back of the machine; improper needle positioning can prevent the machine from functioning properly.

- Shut down the embroidery machine.
- Remove the needle excess.
  Note: If broken needle pieces are not on the garment, look in the bobbin area.
- Lower the presser foot to locate the screw holding the needle. Loosen the screw to release the needle. Refer to Figure 28 for reference.
- Release the needle.
- Insert a new needle.
  Note: Make sure the needle scarf, the half-moon cutout on the back of the needle, faces inward toward the machine. This allows the rotary hook to pass by the needle properly during embroidery.
- Tighten the screw.

Figure 26: Pull the presser foot down so that you can see the screw better.

Completing a Flat Embroidery Design from Start to Finish

Prepare

- Choose the embroidery hoop you want to use.
- Hoop the garment with the backing securely.
- Attach the arm brackets frame to the machine.
- Insert the USB drive into the USB port on the right side of the panel.
- Make sure the embroidery status is set to “Setup Mode” on the panel.

Embroider

- On the home screen, tap “**Select Design**” to choose your embroidery design.
- Browse the machine’s library or load a design from your USB drive. Once you’ve chosen, tap “**Select**” to add it.
- Set your hoop size in the “**Select Hoop**” section. Choose a preset or create a custom size, then tap “**Save**” to confirm.
- Select thread colors for your design by tapping “**Select Color**” and tap “**Save**” after making your choices.
- Before starting, trace the design to ensure proper alignment.
  - Switch to embroidery mode by tapping the “**EMB Mode**” icon in the bottom-right corner.
  - Tap the “**Trace**” icon, then select “**Trace Area**” to confirm the design fits within the hoop.
- Once everything is set, press “**Start**” to begin embroidering!

Completing a Cap Design from Start to Finish

Prepare

- Install the cap driver.
- Hoop the cap with the backing using the cap hooping station. Grab the extra fabric near the back of the cap and secure it with the supplied binder clips, making sure the binder clips are facing inward.
- Insert the cap hoop into the cap driver.
- Insert the USB drive into the USB port on the right side of the panel.
- Make sure the embroidery status is set to “Setup Mode” on the panel.

Embroider

- On the home screen, tap “**Select Design**” to choose your embroidery design.
- Browse the machine’s library or load a design from your USB drive. Once you’ve chosen, tap “**Select**” to add it.
- Set your hoop size in the “**Select Hoop**” section. Choose the cap preset, then tap “**Save**” to confirm.
- Select thread colors for your design by tapping “**Select Color**” and tap “**Save**” after making your choices.
- Before starting, trace the design to ensure proper alignment.
  - Switch to embroidery mode by tapping the “**EMB Mode**” icon in the bottom-right corner.
  - Tap the “**Trace**” icon, then select “**Trace Area**” to confirm the design fits within the hoop.
- Once everything is set, press “**Start**” to begin embroidering!

Maintenance and Care

Daily maintenance is essential to keep your embroidery machine running smoothly and efficiently. Before using your machine each day, follow this simple routine: wipe down the outer surface with a soft cloth and clean the bobbin area using the brush provided in your toolkit. For lubrication, use sewing machine oil specifically on the designated points included in the toolbox instructions. If additional lubrication is needed, white lithium grease, which can be purchased at most hardware stores, may be used; however, it is not included in the toolbox. Proper daily care ensures optimal machine performance and longevity.

Rotary Hook

Apply lubrication oil to the rotary hook every 3 to 4 hours during constant use. Before doing so, make sure to turn off the embroidery machine and unplug it from the electrical outlet for safety.

- Follow the steps in the Bobbin removal section.
- Add two to three drops of embroidery machine oil to the rotary hook.
- Follow the steps in the Placing the bobbin case into the rotary hook section.

Machine Head

- Apply white lithium grease to the metal wheels on the bottom metal bar behind the machine's head every five months.
- To grease both sides of the machine's head, manually switch the needles using the "Needle" icon on the panel home screen. First, set the needle to #1, then switch to needle #10, and repeat the process as needed.

Level Arms

- Apply lubrication oil to the lever arms every week during continuous use.

Head Rail

- Apply 2–3 drops of sewing machine oil to the metal rail (top arrow) every week. Repeat this process on each side of the machine's head by manually switching the needles using the "Needle" icon on the panel home screen. Start with needle #1, then switch to needle #10.
- Every five months, apply grease to the black metal bar (black arrow). Follow the same procedure by switching the needles manually to needle #1, then to needle #10, using the "Needle" icon on the home screen.

Bobbin Case

- Remove accumulated lint from underneath the tension plate by gently cleaning it with the corner of a business card or by using the bobbin thread, similar to how dental floss is used.
  Note: Avoid blowing lint off the bobbin case, as this can deposit damaging moisture or saliva onto it. Instead, use an air gun to safely blow away or remove lint from the bobbin case.

Troubleshooting

Thread Break

If you're experiencing thread breaks, follow these steps to troubleshoot:.

- **Thread Breaks on Some Needles:**
  - Check for defective needles or needles that may not be inserted properly.
- **Thread Breaks on All Needles:**
  - Inspect the hook timing and adjust it if necessary.
- **General Checks:**
  - Ensure the thread follows the correct path from the thread cone to the needle. Refer to your manual or Figure 42 if provided.
- **Check thread tension:**
  - Tight tension can cause missed stitches, thread breaks, pulling, puckering, and thread stress.
  - Loose tension can lead to thread piling up and looping.
- **If No Thread Break is Apparent:**
  - Verify the thread paths are correct.
  - Perform a manual trim.
  - Check the bobbin supply and ensure it is installed properly.
  - Remove any lint or dirt from the bobbin case.
  - Confirm that the thread trimmer knife is fully retracted.
- **If a Thread Break has Occurred:**
  - Ensure the thread is following the correct path.
  - Re-thread the needle properly.

Following these steps should help identify and resolve most thread break issues.

Troubleshooting (Cont'd)

Reasons for Thread Breaks

- **Defective thread**
  - If you encounter a defective section in the thread, start by gently pulling the thread until the damaged part has passed. If this doesn't resolve the issue, consider replacing the thread with a new cone to ensure smooth operation.
- **Garment or fabric**
  - If the fabric is too thick, needles tend to bend slightly as they pass through, causing the thread to scrape against the needle plate, resulting in the thread shredding. To fix this problem, try a larger needle.
  - Hidden obstructions in the garment: bulky seams, inside pockets, hidden buttons.
  - Ensure the embroidery hoop is framed properly. Loosely framed fabric will bounce up and down during sewing. See the hooping fabric section.
  - Excessive backing will apply greater friction to the thread and needle and cause thread or needle to break.
- **Embroidery design**
  - Too high density of thread in the design can cause needle deflection, which leads to thread shredding and breaks. Too many stitches in a small area can cause thread breaks. Try deleting short stitches or increasing the design by five (5) to ten (10) percent.
  - Extremely short stitch lengths may cause the thread to pile up in one area. Known as nesting, this issue causes thread to shred and break.

Prevention

- To prevent thread breaks, store threads properly in a dark, cool place.
- Old threads not stored properly will cause thread breaks.
- Prolonged exposure to air, light, age and heat will make threads become brittle.
- Do NOT use tape to tie off thread ends, since tape leaves a stick residue that causes friction and breaks.
- Inspect the thread guides, needle eye, thread plate, and hook for burrs—small rough edges or imperfections that can form during manufacturing or wear and tear. These burrs can cause thread fraying, breaking, or snagging. Smooth them out using fine sandpaper, a file, or a burr removal tool to ensure smooth machine operation and protect your thread and fabric.

Troubleshooting (Cont'd)

Needle Breaks

Changing the needle is one of the simplest troubleshooting steps. Set the old needle aside and try a fresh one to see if it resolves the issue. If the needle is found to be the cause, safely dispose of it in an old medicine bottle or another sharp-safe container. To avoid further problems, replace the needle after three consecutive thread breaks.

Check the following common reasons to see why your needle(s) may be breaking.

- Needle is worn out or old
- Designs with too many stitches
- Hitting the embroidery hoop
- Fabric moving while needle is penetrating

Bobbin Tension

If you suspect the bobbin isn't rotating smoothly in your embroidery machine, consider these steps.

- Place the bobbin case with the bobbin face down, flat on a flat surface.
- Pull a few inches of the thread out.
  - If the bobbin is not spinning freely, the odds are that it is not spinning freely in the embroidery machine either.
- Retest the case with another bobbin.

Timing Overview

Adjusting the timing of a needle and hook

- The needle timing is set at 195 degrees, ensuring proper alignment between the needle and the hook. If the gap between the needle and the hook point is too wide, the thread may not catch, leading to thread breaks. Conversely, if the gap is too narrow, it can result in broken needles.
- A gap of approximately 0.004 to 0.012 inches between the needle and the hook is ideal.

Error Messages

Thread Breaks

When a thread break occurs, the embroidery machine will automatically stop. For guidance on how to thread the needle, refer to the “Threading a Needle” section.

Follow these steps to address a thread break and resume embroidering:

- Identify the thread break through the error message that appears on your panel screen.
- Press “OK” on the error message.
- Rethread the needle that experienced the thread break.
- On the panel’s home screen, tap the “Float” icon.
- In the Float section, press the backward arrow to move back a few stitches in your design.
- Once you’re done, press the home button to return to the home screen.
- Hit “Start” to continue embroidering.
  Note: Do not exit “EMB Mode” during this process, as doing so will erase your progress, requiring you to restart the design from the beginning.

Needle Breaks

- Replace damaged or bent needles.
- Make sure to thread the needle from the front to the back and down the presser foot. If you need instructions on how to thread the needle, see the Threading a needle section.
  - Needles break for different reasons. The most common reasons are:
    - A worn out or old needle.
    - Designs with too many stitches and/or are high density for the design area.
    - Smoothing is blocking the stitch path.
    - Hitting the embroidery hoop is occurring.
    - The fabric moving while the needle is penetrating.
- Follow these steps to address a needle break and resume embroidering:
  - Remove the needle break excess.
    - A tweezer might be a useful tool to remove the remaining pieces.
  - Take a screwdriver and loosen up the screw specific to the needle.
  - Remove the released needle.
  - Insert a new needle.
    - Ensure the big groove and the needle hole facing completely forward.
  - Tighten the screw.
  - Thread the missing path.
    - Make sure to thread the needle the front to the back and down presser foot.

Error Messages (Cont'd)

Main Axis

When your main access is not at 100 degrees, an error message will be displayed on your screen.

- Press "OK" on the error message.
- On the panel's home screen, tap the "Reset" icon.
- This will reset your axis to 100°.

If you are still receiving the error message:

- Press "OK" on the error message.
- Turn off the embroidery machine.
- Rotate the degree knob in the back of the embroidery machine to 100°. See Figure 108.
- On the panel's home screen, tap the "Reset" icon.
- This will reset your axis to 100°.

Note: If you are still experiencing issues, please contact Ricoma support team at https://ricoma.com/US/support

Pre-Embroidery Checklist

Before operating the embroidery machine, ensure the following steps have been completed. Press “OK” on the error message.

- **Prepare the Machine**
  - Thread the top thread.
  - Check thread tension.
  - Install the bobbin.
  - Power on the embroidery machine.
- **Prepare the Design and Hoop**
  - Input the design into the machine.
  - Select the desired embroidery design.
  - Choose the appropriate embroidery hoop.
  - Hoop the garment securely.
  - Install the embroidery hoop onto the machine.
- **Before Starting**
  - Verify the embroidery area.
- **Embroidery Process**
  - Start embroidering.
  - Once complete, remove the hoop and garment from the machine.
- **Shut Down**
  - Turn off the embroidery machine.