Altair™ & Meridian™

Embroidery and Sewing Upgrade

Instruction and Reference Guide

Model BLTAU

baby lock

FOR THE LOVE OF SEWING

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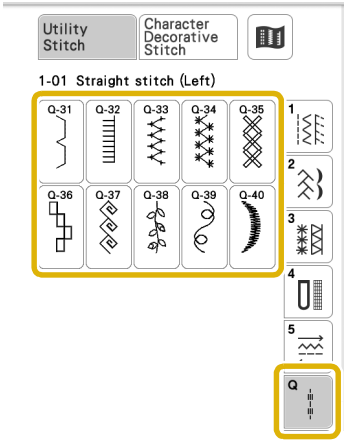
This manual provides details on the functions added/upgraded. Before using this manual, upgrade your machine according to the procedure in the Installation Guide. Before using the functions described in this manual, read the Instruction and Reference Guide included with the machine.
The screen illustrations in this manual may differ from actual ones shown on the machine.

(FOR BLTA ONLY) UTILITY STITCHES AND CHARACTER/ DECORATIVE

The Utility Stitch Patterns

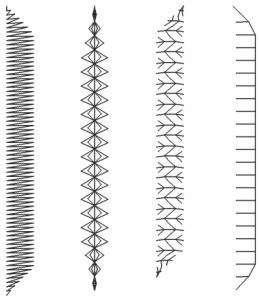
10 utility stitch patterns have been added. These stitches are also designed for use with the digital dual feed foot.



In addition, the stitch patterns (other than) of the category can be used with the digital dual feed foot.

Changing the Start and End Angles of the Stitch Pattern (Stitch Tapering Function)

The angles of the start and end of stitch patterns can be changed. This is useful when sewing projects with sharply defined angles or decorative stitching, attaching appliqués, etc.



Use the method for finishing sewing the stitch pattern, according to your needs.

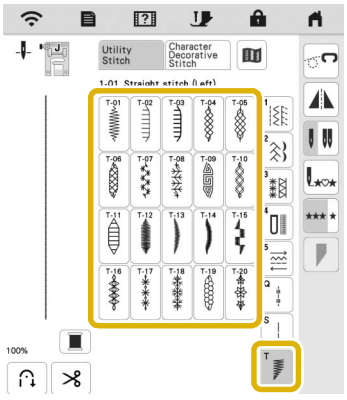
- Method 1: Begin Changing the Angle at the End of Sewing by Pressing the “Reverse Stitch” Button (page 2)
- Method 2: Sewing a Specified Number of Stitch Patterns (page 4)

Note

- Using the same material and stitch pattern as your project, sew trial stitches to check the result. If necessary, attach a stabilizer material.
- If reinforcement stitches at the beginning and end of sewing are needed, use (Reinforcement stitch button). (Reverse stitch button) cannot be used for reinforcement stitching when stitch tapering function is on.

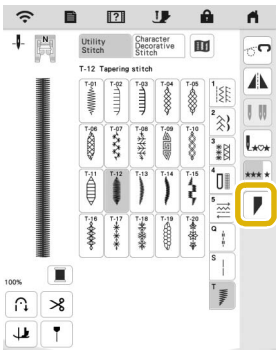
■ Method 1: Begin Changing the Angle at the End of Sewing by Pressing the “Reverse Stitch” Button

1 Touch Utility Stitch, then , and then select a stitch pattern for stitch tapering.

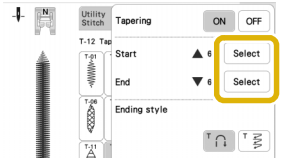


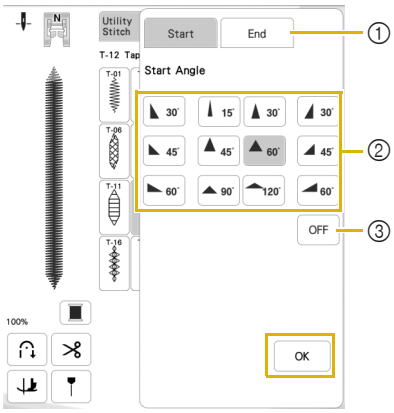
2 **If necessary, change the stitch width and stitch length.**

3 **Touch** .



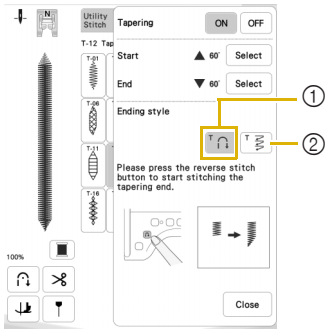
4 **Touch** Select **, select the angle settings for the start and end of sewing, and then touch** OK .





① Select the start or end of sewing.
② Select an angle.
③ Specify that the angle does not change.

5 **Select the method for finishing sewing. For this example, since the angle at the end of sewing will begin changing when** **(Reverse stitch button) is pressed, select** .

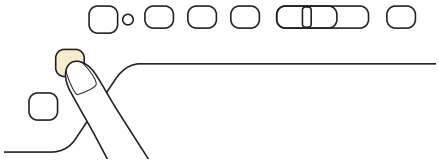


① Press (Reverse stitch button) for the angle at the end of sewing to start changing; the machine stops when sewing is finished.
② The machine stops when the specified number of stitch patterns have been sewn. The number of patterns that are specified includes the number of patterns used to change the angle. (page 4)

6 **If necessary, use a chalk pencil to draw a line at the location to be sewn.**

7 **Start sewing.**

8 **After sewing the desired length, press** **(Reverse stitch button).**



→ When (Reverse stitch button) is pressed, the angle at the end of sewing begins to change, and the machine stops when sewing is finished.

Memo

- If you stop sewing at the point where end tapering should begin (either by pressing the “Start/Stop” button or by lifting your foot from the foot controller), press (Reverse stitch button) and resume sewing by either pressing the “Start/Stop” button or pressing on the foot controller. End tapering will begin as soon as sewing resumes.

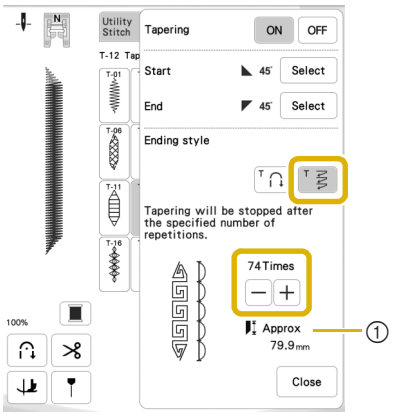
9 **When finished sewing, set [Tapering] to [OFF], and then touch** Close .

■ Method 2: Sewing a Specified Number of Stitch Patterns

With this method, the number of stitch patterns (including those used to change the angle) are specified. This allows stitch patterns of the same length to be repeatedly sewn.

1 Refer to steps 1 through 4 of "Method 1: Begin Changing the Angle at the End of Sewing by Pressing the "Reverse Stitch" Button" on page 2 to select the angle settings for the start and end of sewing.

2 Touch , and then specify the number of stitch patterns (including those used to change the angle).



① Approximate length of the stitch pattern

Memo

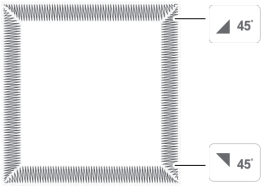
- The number of stitch patterns used to change the angle depends on the pattern and angle. Perform trial sewing to check the result.

3 Start sewing.

→ The machine stops automatically when sewing is finished.

Memo

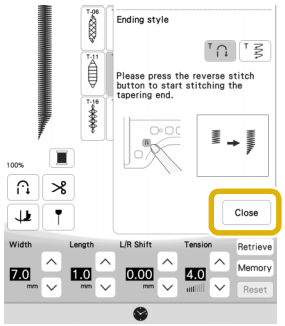
- To sew stitching in a square, select 45° for the start of sewing and 45° for the end of sewing, and then continue sewing the same stitch pattern, rotating the fabric 90° after sewing each line of stitching.
  The pivot setting is useful when changing the sewing direction. For details, refer to "Pivoting" in the machine's Instruction and Reference Guide.



■ Saving Settings

Specified angles for start and end, finish tapering method, and stitch settings can be saved in machine's memory.

1 After setting the tapering function, touch Close.



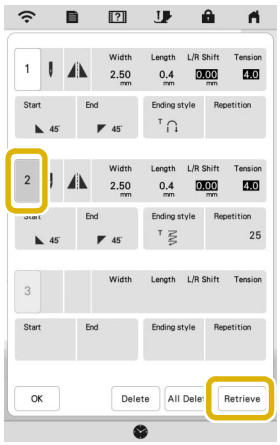
2 Touch Memory.

■ Retrieving Saved Settings

1 Touch Retrieve to retrieve the saved setting after selecting pattern.

2 Touch the numbered key of the settings to be retrieved and then touch Retrieve.

* The settings cannot be retrieved if stitch tapering function is set to [ON].



Memo

- For more information on saving and recalling settings, refer to "Saving Your Stitch Settings" in the machine's Instruction and Reference Guide.

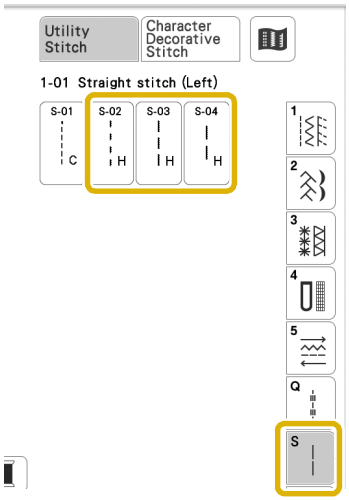
Hand-Look Quilting

Three stitch patterns for hand-look quilting have been added.

Sew hand-look quilting stitch patterns using the threads recommended below:

Upper thread: Use transparent nylon thread or lightweight thread that matches the color of the fabric for this thread to appear invisible.

Bobbin thread: Use a color that contrasts with the fabric for the stitch pattern to stand out.



Memo

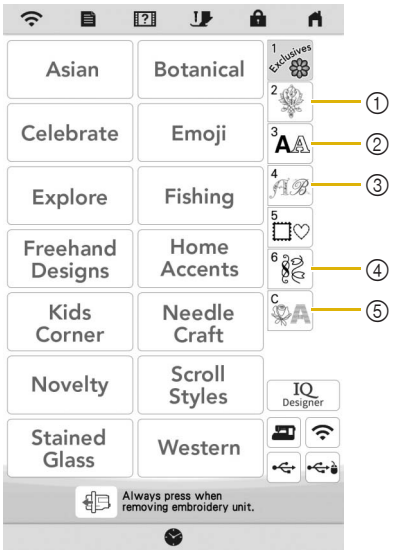
- For most fabrics and threads, using a 90/14 needle will result in a clean finish.
- To bring up more of the bobbin thread, increase the thread tension.
- S-02, S-03, S-04 are made up of several short stitches.

(FOR BLTA AND BLMA) EMBROIDERY

New Embroidery Patterns

Patterns have been added to the following categories.

For details, refer to the Embroidery Design Guide for this KIT.



① Pattern type selection keys have been added.

② ABC ABC have been added.

③ AB has been added.

④ Two eyelet patterns have been added to . Patterns have been added to .

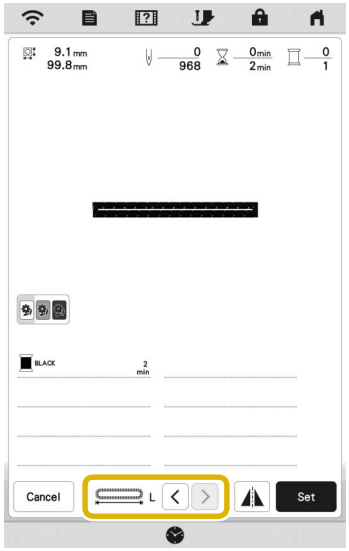
⑤ have been added. For details on embroidery couching, refer to “Embroidering Couching Patterns” on page 14.

Buttonhole Patterns

The size settings for buttonhole patterns have been changed. In addition to the previously available settings [L], [M] and [S], size settings [SS] and [XS] are available.

1 **Touch and then touch .**

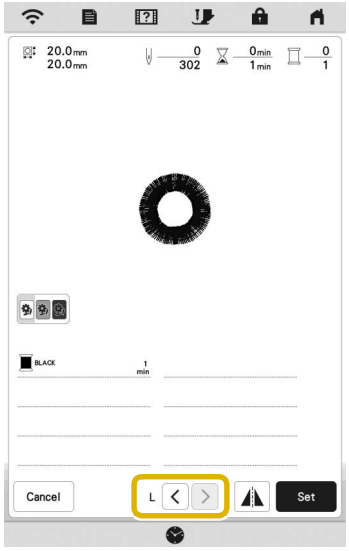
2 **Select a pattern, and then touch to change the size.**



Eyelet Patterns

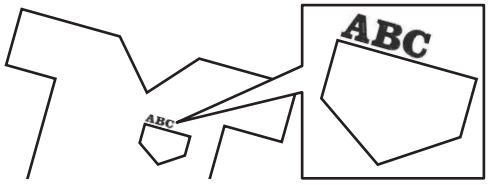
1 **Touch and then touch .**

2 **Select a pattern, and then touch to change the size.**



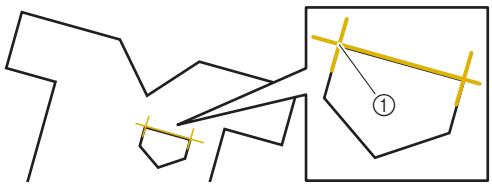
The 2-point Embroidery Positioning Function

By using the 2-point embroidery positioning function with a LED pointer, the embroidering position can easily be aligned. This is useful when embroidering in an area where it is necessary to align the pattern, as shown below.



1 **Use a chalk pencil to mark the desired embroidering position.**

The line drawn for the reference direction should be longer.

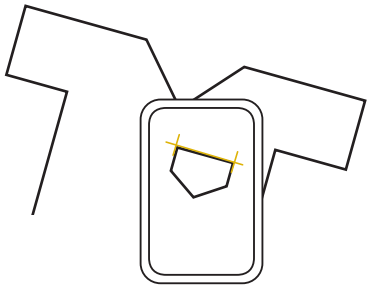


① Chalk pencil mark

Memo

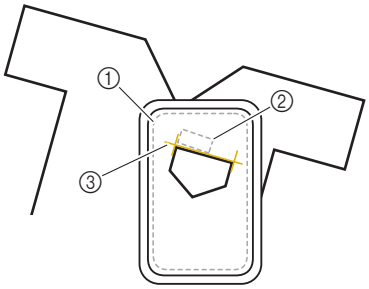
- If the desired position of the pattern can be clearly established, such as when embroidering along a pocket, it is not necessary to mark the position with a chalk pencil.

2 **Hoop the fabric in the embroidery frame.**



Note

- When hooping the fabric in the embroidery frame, make sure that the embroidery pattern will fit within the embroidering area of the frame being used.

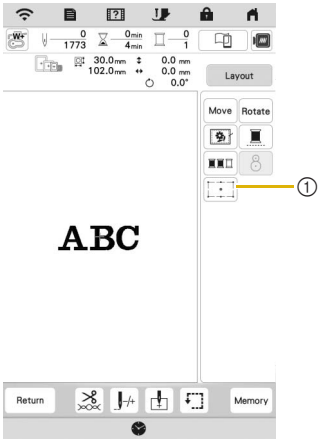


① Embroidering area
② Embroidery pattern size
③ Chalk pencil mark

3 **Select the pattern.**

4 **Touch** Embroidey **to display the embroidery screen.**

5 **Touch** Layout **and then touch** .



① Switch on/off the 2-point embroidery positioning function with a LED pointer.

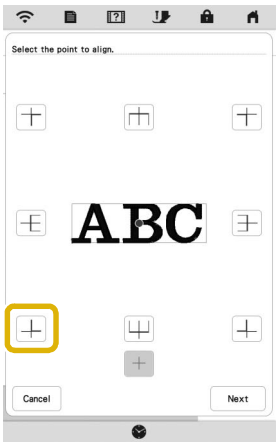
Memo

- The LED pointer lights up to indicate the needle drop point.
- When the LED pointer is turned on, the embroidery foot height is automatically adjusted according to the fabric thickness.
- If the surface of the fabric is too uneven or rough, check and adjust the alignment of the light of the LED pointer and the needle drop point before starting to embroider.

6 **If a message appears, indicating that the move and rotate settings will return to the original ones, touch** OK **.**

7 **From the reference points shown in the screen, select the point to be used for aligning the pattern.**

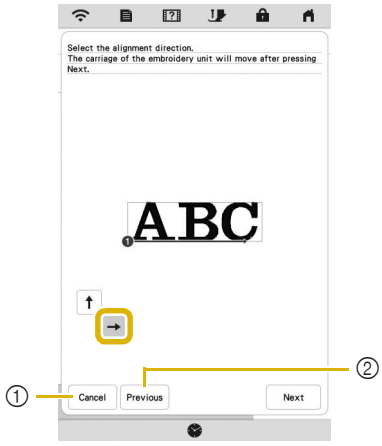
For this example, select the point in the lower-left corner of the pattern.



8 **Touch** Next **.**

9 **Select the direction (from the reference point) to be used as a reference for aligning the pattern.**

For this example, select the arrow pointing to the right as the reference direction.

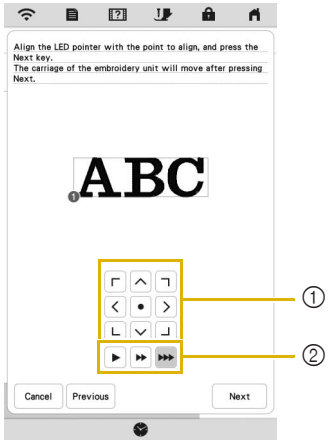


① Cancel the pattern alignment settings.
② Return to the previous screen.

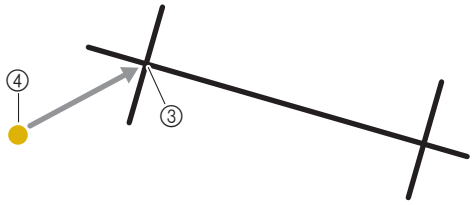
10 **Touch** Next **.**

11 **Touch the positioning keys to move the embroidery frame until the position of the LED pointer and the center of the first mark are aligned.**

To change the speed that the frame moves, use the frame movement speed keys. If it is difficult to make a precision alignment, touch a frame movement speed key for a slower speed.



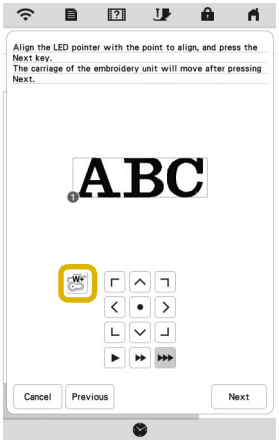
① Positioning keys
② Frame movement speed keys



③ Center of the first mark
④ Light of the LED pointer

Note

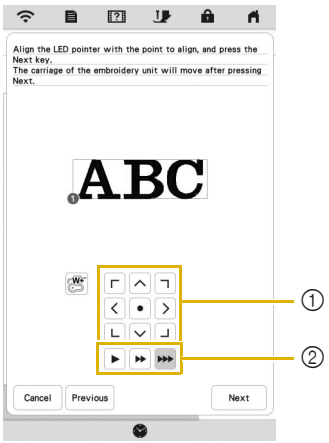
- If [W+] is displayed to the left of the positioning keys, the LED pointer has shifted from its initial position. Touch [W+] to adjust the position.



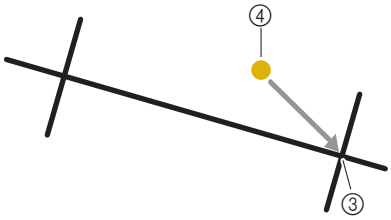
12 **Touch** [Next].

13 **Touch the positioning keys to move the embroidery frame until the position of the LED pointer and the center of the second mark are aligned.**

To change the speed that the frame moves, use the frame movement speed keys. If it is difficult to make a precision alignment, touch a frame movement speed key for a slower speed.



① Positioning keys
② Frame movement speed keys



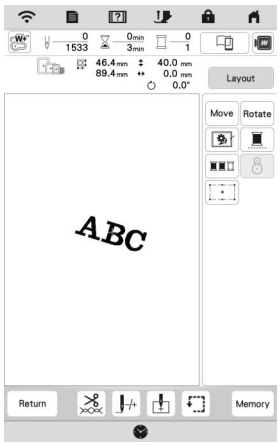
③ Center of the second mark
④ Light of the LED pointer

Note

- Set the position of the LED pointer to a position that is not too close to the first reference point. If it is too close, a message will appear, prompting you to reposition it.
- In order to increase the accuracy of the pattern alignment, align the position of the LED pointer above the second mark (③) and as far away from the center mark as possible.

14 **Touch** [Set].

→ The pattern is repositioned.

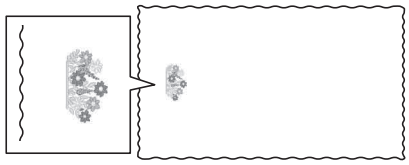


15 **Press the "Start/Stop" button to start embroidering.**

■ Another example

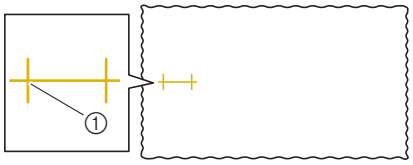
By specifying an alignment point and direction, embroidery patterns can be positioned and aligned for various purposes.

In this example, a pattern is aligned at the left center of the towel.



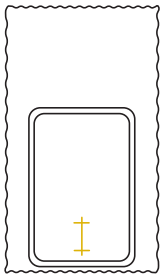
1 **Use a chalk pencil to mark the desired embroidering position.**

The line drawn for the reference direction should be longer.



① Chalk pencil mark

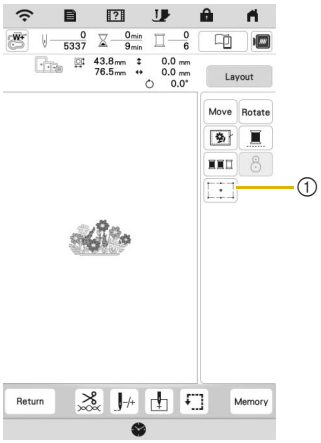
2 **Hoop the fabric in the embroidery frame.**



3 **Select the pattern.**

4 **Touch** Embroidey **to display the embroidery screen.**

5 **Touch** Layout **and then touch** .

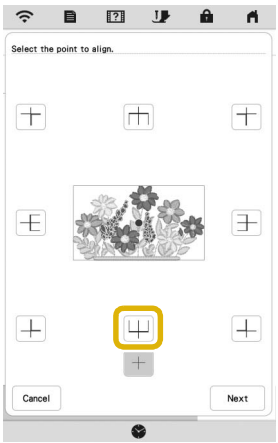


① Switch on/off the 2-point embroidery positioning function with a LED pointer.

6 **If a message appears, indicating that the move and rotate settings will return to the original ones, touch** OK **.**

7 **From the reference points shown in the screen, select the point to be used for aligning the pattern.**

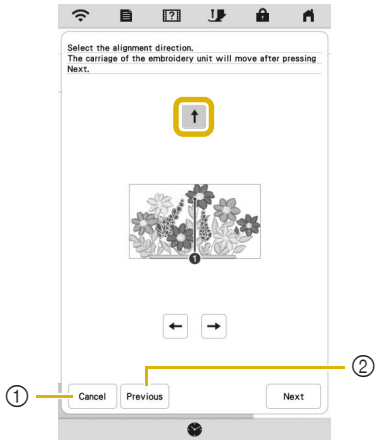
For this example, select the point in the lower-center of the pattern.



8 **Touch** Next **.**

9 **Select the direction (from the reference point) to be used as a reference for aligning the pattern.**

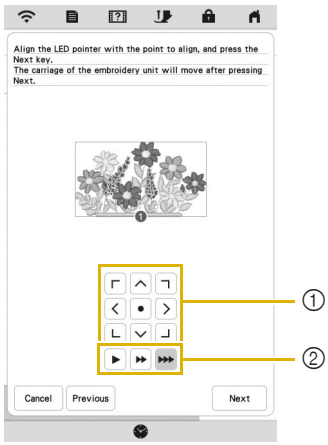
For this example, select the arrow pointing upward as the reference direction.



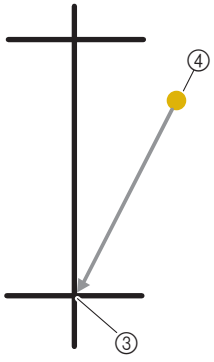
① Cancel the pattern alignment settings.
② Return to the previous screen.

10 **Touch** Next **.**

11 **Touch the positioning keys to move the embroidery frame until the position of the LED pointer and the center of the first mark are aligned.**



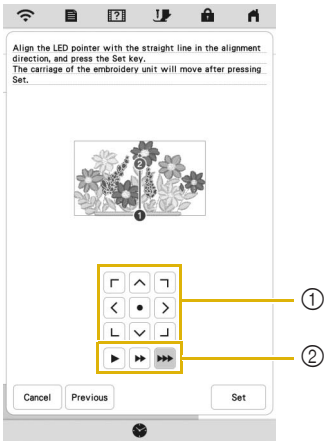
① Positioning keys
② Frame movement speed keys



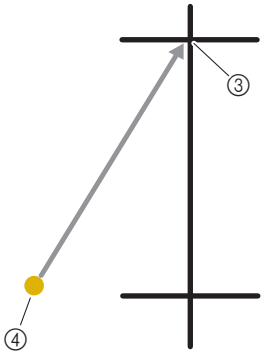
③ Center of the first mark
④ Light of the LED pointer

12 **Touch** Next .

13 **Touch the positioning keys to move the embroidery frame until the position of the LED pointer and the center of the second mark are aligned.**



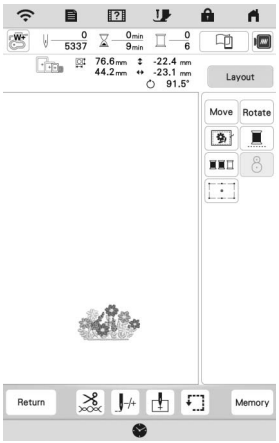
① Positioning keys
② Frame movement speed keys



③ Center of the second mark
④ Light of the LED pointer

14 **Touch** Set .

→ The pattern is repositioned.

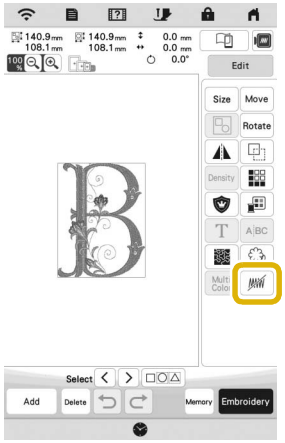


15 **Press the "Start/Stop" button to start embroidering.**

Deselect Region Setting (No Sew Setting)

The deselect region setting (which specifies that a thread color will not be embroidered) can be applied to a part of the pattern with a specific color.

1 **Touch** **in the embroidering edit screen.**

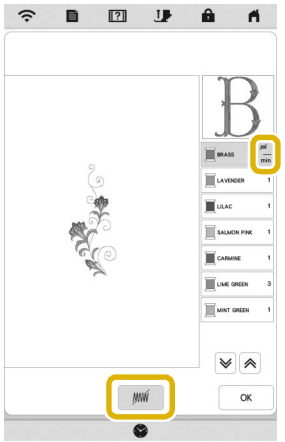


2 **From the thread color sequence display, select the thread color that will not be embroidered.**

→ The selected thread color is highlighted in blue.

3 **Touch** .

→ The mark appears to indicate that the selected thread color will not be embroidered.
The parts of the pattern that will not be embroidered are hidden in the pattern preview screen.



Memo

- To cancel the setting, select the thread color and touch .

4 **If necessary, repeat steps 2 and 3 for all thread colors that will not be embroidered.**

5 **After specifying the desired settings, touch OK.**

6 **Touch and then touch to check an enlarged image of the finished embroidery.**

* After deselecting a region, check the image to be sure no previously hidden stitches are visible.

Memo

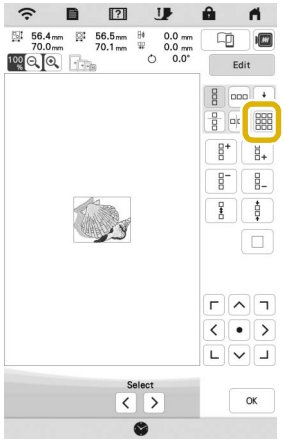
- When a pattern with the deselect region setting applied is saved, the deselect region setting is also saved. However, the pattern cannot be saved if the deselect region setting is applied to all thread colors.
- The parts with the deselect region setting applied are merely not displayed; they are not deleted. The embroidery area required to embroider the pattern is the same as for the original pattern.

Repeating Patterns Using the Matrix Copy

Place the pattern repeatedly throughout the embroidery area.

1 **Touch .**

2 **Touch .**

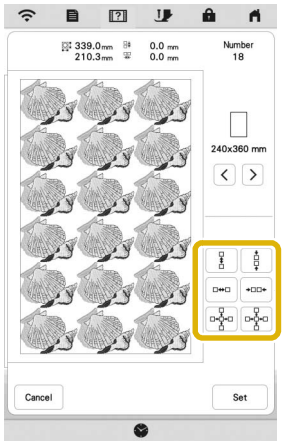


→ The repeated pattern is displayed positioned throughout the area.

3 **Adjust the spacing of the repeated pattern.**

* : Widen spacing.

* : Tighten spacing.



→ Every time the key is pressed, the pattern is automatically re-laid out.

4 **Touch Set.**

5 **Touch OK.**

IQ Intuition- Monitoring App

With the IQ Intuition- Monitoring App installed on your smart device and the machine and smart device connected to the same wireless network, you can check the operating status of the machine. In addition, you can receive notifications when the machine stops.

■ Installing the App

1 Use your smart device to scan the appropriate QR code below to visit Google Play™ or the App Store.

Android™:
https://www.babylock.com/IQIntuition_MonitoringAndroid

iOS:
https://www.babylock.com/IQIntuition_MonitoringiOS

2 Install [IQ Intuition- Monitoring].

IQ Intuition- Monitoring

Memo

- To download and install the app, you can also search for [IQ Intuition- Monitoring] in Google Play™ or the App Store.
- For more information on how to use this application, visit the following web site.
https://www.babylock.com/support
- Any trade names and product names of companies appearing on Baby Lock products, related documents and any other materials are all trademarks or registered trademarks of those respective companies.

■ Monitoring

Memo

- The app will be updated from time to time. The following descriptions may differ from the actual screens and operations.

1 Connect the machine to your wireless network.

* Refer to "WIRELESS NETWORK CONNECTION FUNCTIONS" in the machine's Instruction and Reference Guide.

2 Confirm that your smart device and your machine are connected to the same network.

3 Tap the icon for [IQ Intuition- Monitoring] on the smart device to start the app.

4 Follow the instructions that appear in the app to connect the app to your machine.

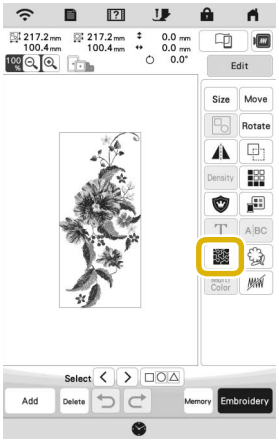
* Select the name that appears beside [Machine name] in the settings screen on your machine.

→ The machine can now be monitored.

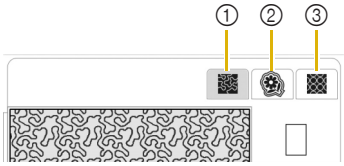
Creating Stippling, Echo Quilting, or Decorative Fill Patterns around a Design

As well as stippling, echo quilting, and decorative fill patterns can be created around the machine's built-in patterns or original embroidery data without using IQ Designer.

1. **Select the pattern that will be added around, and then touch** Set.
2. **Touch** Edit **and then touch** .

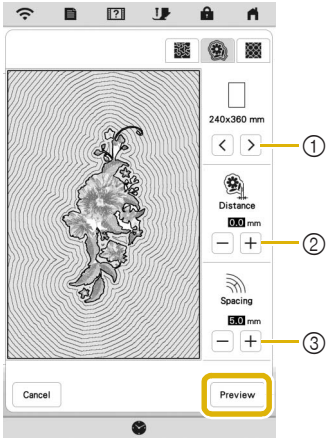


3. **Select the decorative patten to surround the design. For this example, select** **(echo quilting).**



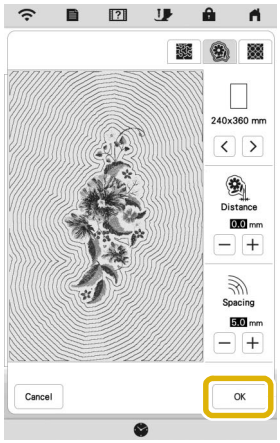
① Stippling
② Echo quilting
③ Decorative fill patterns

4. **Specify the settings and then touch** Preview.



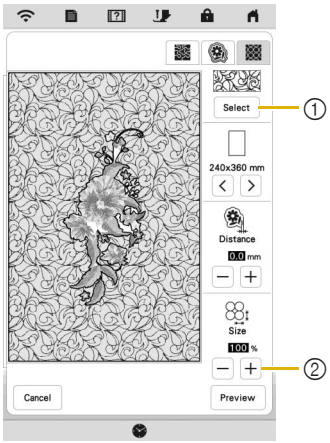
① The echo quilting is added within the area of the selected frame size. If the pattern is larger than the selected embroidery frame size, the area indicating the embroidery frame size will appear in gray, and echo quilting will not be added.
② Specify the distance from the outline of the pattern to the echo quilting.
③ Specify the spacing for the echo quilting.

5. **Check the image of the pattern. Specify the settings again as necessary. If the settings are finished, touch** OK.



Memo

- If (decorative fill patterns) is selected, the available settings will be different than with echo quilting.



① Select a decorative fill pattern.
② Increases/reduces the size of the pattern.

Embroidering Couching Patterns

Couching patterns can be embroidered using yarn.

⚠ CAUTION

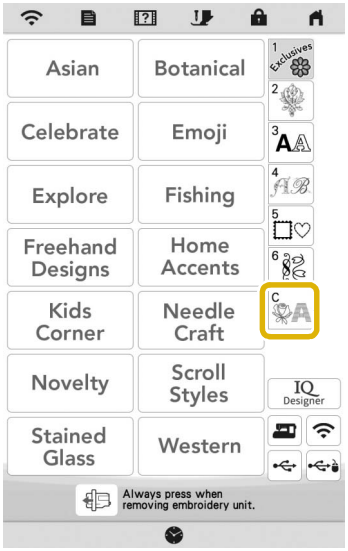
- **When using yarn, we recommend selecting yarn of weight 4 (MEDIUM 4). Medium yarn is often referred to as worsted weight, 20 knitted stitches per 10 cm, or 9-11 wraps per inch. The diameter of the yarn is approximately 2-3 mm (approx. 1/12-1/8 inch). If the yarn is extremely thin or thick, has an unusual shape (flat or furry), or more than 2 yarns, the best finishing results may not be achieved, or injuries or damage may result.**

Note

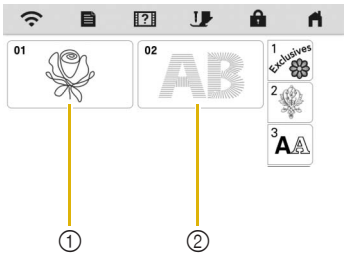
- If the spool stand in the procedure is not included with your machine, purchase the optional spool stand (BLMA-STS) from your authorized Baby Lock retailer or our web site.
- Before embroidering your project, do trial embroidery on a scrap piece of fabric that is the same as that used in your project.

■ Preparing for Embroidery Couching

1. **Turn off the machine.**
   Attach the embroidery unit.
2. **Install a bobbin wound with embroidery bobbin thread.**
3. **Turn on the machine.**
4. **Touch , and then touch .**

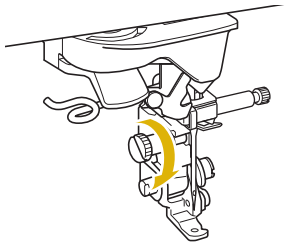


5. **Select the desired pattern from the desired category.**
   And then touch Set.



① Couching patterns
② Fill couching embroidery font

6. **Touch to lock all keys and buttons, and then raise the presser foot lever.**
7. **Attach embroidery couching foot "Y".**

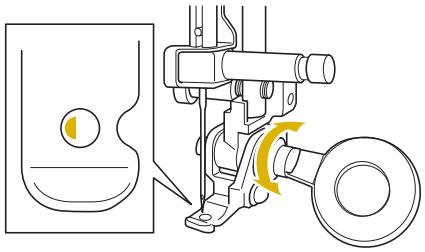


⚠ CAUTION

- **When using the embroidery couching foot "Y", make sure the machine is in embroidery mode. Otherwise, the needle will strike the embroidery couching foot, causing the needle to break and possibly causing injury.**

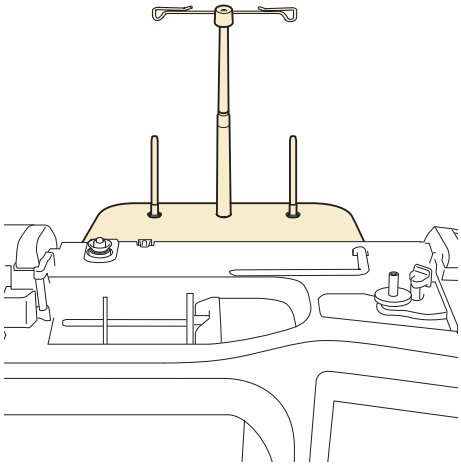
8 **Rotate the handwheel and check that the needle is in the left half of the hole in embroidery couching foot "Y".**

If the needle is not in the left half, use the disc-shaped screwdriver to turn the screw of embroidery couching foot "Y" to adjust the position of the embroidery foot. Turn the screw toward you to move the embroidery foot to the right. Turn the screw toward the back to move the embroidery foot to the left.
After making adjustments, rotate the handwheel and check that the needle does not touch the presser foot.

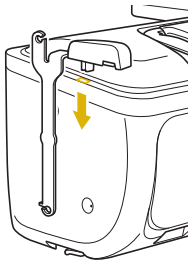


9 **Attach the spool stand (sold separately with some models) to the machine.**

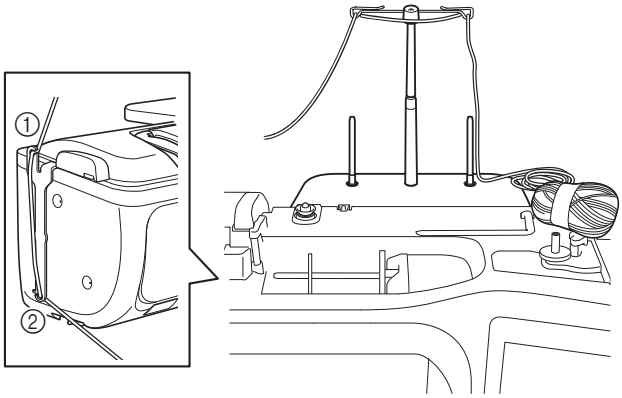
At this time, do not raise the telescopic thread guide shaft.



10 **Insert the yarn guide for embroidery couching into the slot on the top left of the machine.**



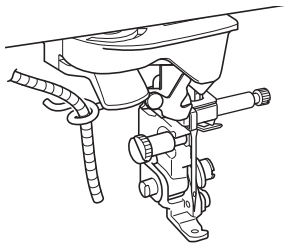
11 **Pass the yarn through the telescopic thread guide and the yarn guide (①) to (②).**



Note

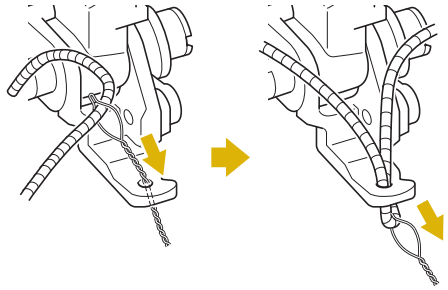
- Pull off an appropriate amount of yarn from the ball so that the yarn does not become taut.
- Make sure that the yarn does not become entangled as you work.

12 **Pass the yarn through the guide on embroidery couching foot "Y".**



13 **Thread the yarn through embroidery couching foot "Y".**

Pass the yarn through the loop in the yarn threader, and then pass the threader from top to bottom through the hole in embroidery couching foot "Y". Pull the yarn to the front of the machine.



Memo

- Place a sheet of paper under the presser foot to smoothly pass the yarn threader through the hole in embroidery couching foot "Y".

14 **Touch** **to unlock all keys and buttons.**

15 **Thread the machine with the upper thread.**

Note

- Do not use the spool stand for upper thread. Otherwise thread may tangle with yarn.

Memo

- For best results, use an upper thread that is the same color as the yarn.

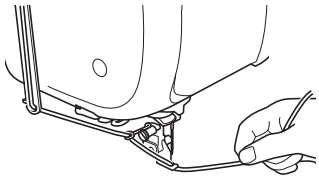
16 **Press (Presser foot lifter button) twice to raise the presser foot and then attach the embroidery frame to the embroidery unit.**

■ Embroidering a Couching Pattern

1 **Touch Embroidey.**

2 **Make sure that about 20 cm (approx. 8 inches) of yarn is pulled to the front of the machine.**

3 **While holding the yarn in your hand in front of you, press the "Start/Stop" button.**



⚠ CAUTION

- **Pulling the yarn upwards may cause it to catch on the needle, causing it to break. Be careful not to allow the yarn to catch on the needle.**

Note

- Before embroidering, make sure that there is enough yarn, upper thread and bobbin thread.
- Make sure that the yarn passes smoothly through the guides. Unravel as much yarn from the ball as necessary so that the yarn does not become taut.
- Use yarn that has no knots.

4 **After embroidering several stitches, release the yarn.**

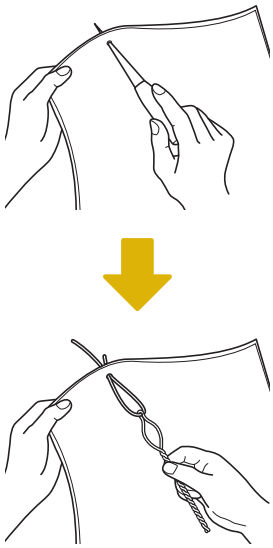
→ When embroidering is finished, the machine will automatically trim the threads and stop.

Memo

- When using a high-density yarn, the upper thread tension may be disturbed. If this happens, it is possible to improve it by raising the [Embroidery Foot Height] by about 1 mm on the settings screen.

5 **Cut the yarn, leaving about 20 cm (approx. 8 inches).**

6 **Punch a hole through the fabric with an awl or tapestry needle and then use the yarn threader to pull the excess yarn to the wrong side of the fabric.**

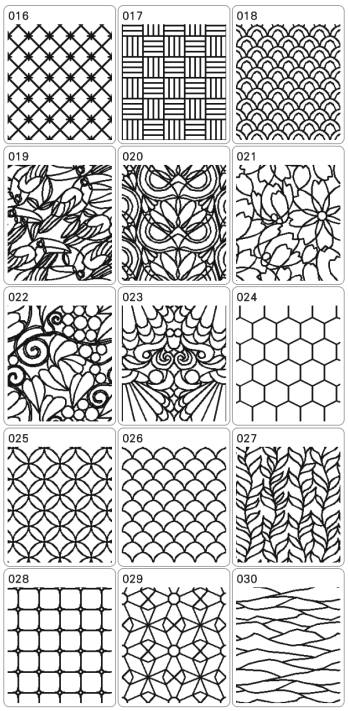


7 **Tie the end of the yarn so it cannot be pulled out, and then use scissors to cut off any excess yarn.**

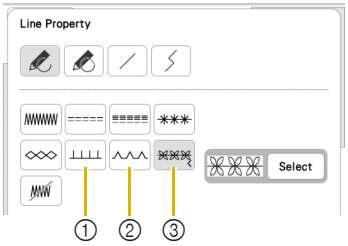
(FOR BLTA AND BLMA) IQ DESIGNER

Additional Patterns

15 decorative fill patterns have been added.



Following line stitch types have been added.

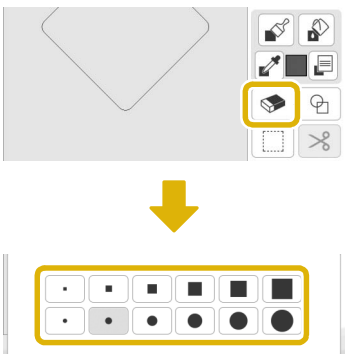


① E stitch
② V stitch
③ Motif stitches

Touch Select to select a motif stitch.

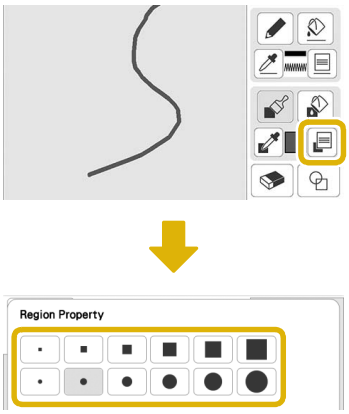
Using the Erase Key

More eraser shapes have been added.



Setting the Brush Types

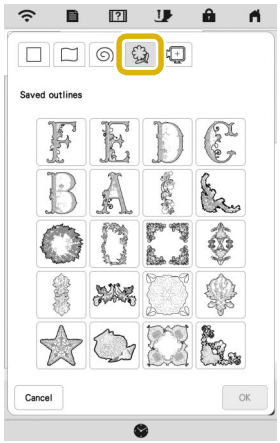
More brush types have been added.



Saved Outlines

20 embroidery pattern outlines can be registered as stamp shapes. If more than 20 shapes are registered, the oldest one is automatically erased.

For details on registering a stamp shape, refer to “Decorative Stitching around a Pattern in Embroidery (a Quilting Function)” in the machine’s Instruction and Reference Guide.



(FOR BLTA AND BLMA) OTHER FUNCTIONS

The tutorial videos about the new features have been added. Refer to “Playing a Tutorial Video” in the machine’s Instruction and Reference Guide.

English
Version 0