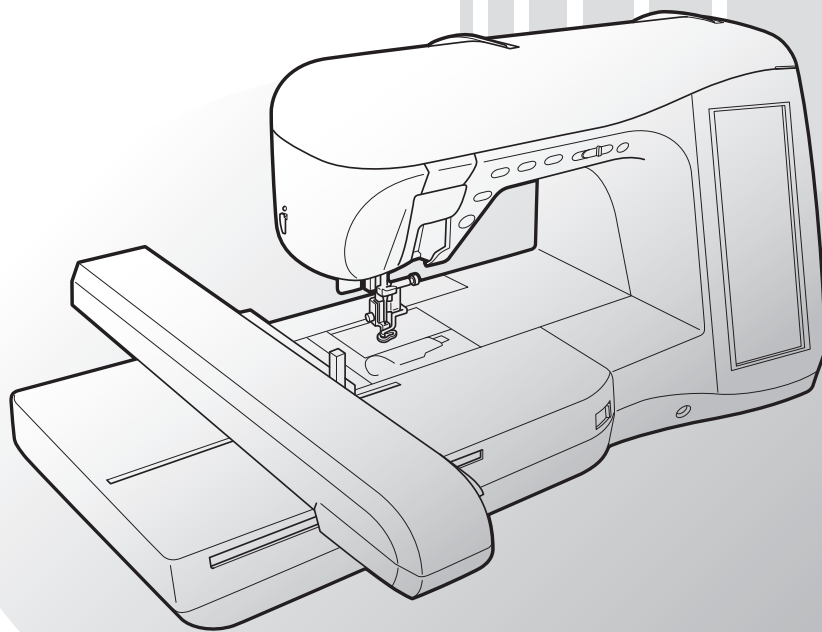


Operation Manual Addendum



This manual provides additional information not described in the Operation Manual.
Be sure to read this information before using the machine.

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About this manual

This manual provides additional information not described in the Operation Manual. Be sure to read this information before using the machine.

About the appearance of the screens

Some of the screens in this manual may differ from actual ones on the machine. Please refer to the Quick Reference Guide for details about screens.

Features for Utility Stitches




Pivoting

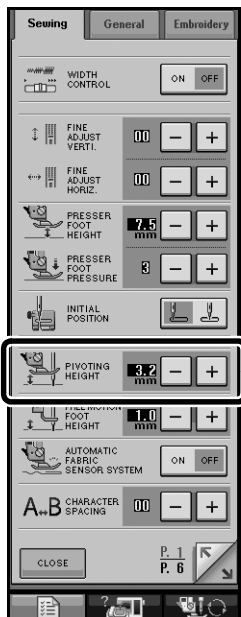
If the pivot setting is selected, the machine stops with the needle lowered (in the fabric) and the presser foot is automatically raised to an appropriate height when the “Start/Stop” button is pressed. When the “Start/Stop” button is pressed again, the presser foot is automatically lowered and sewing continues. This function is useful for stopping the machine to rotate the fabric.

CAUTION





- When the pivot setting is selected, the machine starts when the “Start/Stop” button is pressed or the foot controller is pressed down even if the presser foot has been raised. Be sure to keep your hands and other items away from the needle, otherwise injuries may occur.

Memo

When the pivot setting is selected, the height of the presser foot when sewing is stopped can be changed according to the type of fabric being sewn. Press  to display “PIVOTING HEIGHT” on P. 1 of the settings screen. Press  or  to select one of the three heights (3.2 mm, 5.0 mm or 7.5 mm). To raise the presser foot further, increase the setting. (Normally, 3.2 mm is set.)

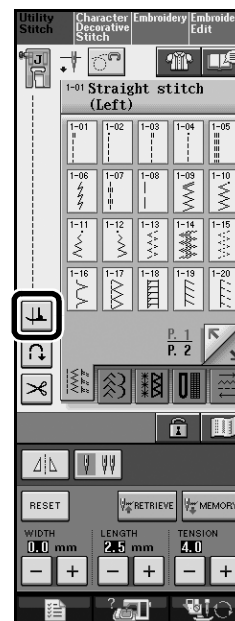



Note

- The “NEEDLE POSITION” (P. 2 of the settings screen) must be set in the down position for the pivot function to be used. When “NEEDLE POSITION” is set in the raised position,  appears as light gray and cannot be used.
- When the setting is selected, the pivot function can only be used with stitches where presser foot J or N is indicated in the upper-left corner of the screen. If any other stitch is selected,  appears as light gray and is not available.
- Since the presser foot is fully raised when the automatic thread cutting key is pressed, press the “Presser Foot Lifter” button to lower the presser foot, and then press the “Start/Stop” button to continue sewing.
- If the pivot setting is selected,  and  beside “PRESSER FOOT HEIGHT” in the settings screen are not available and the setting cannot be changed.

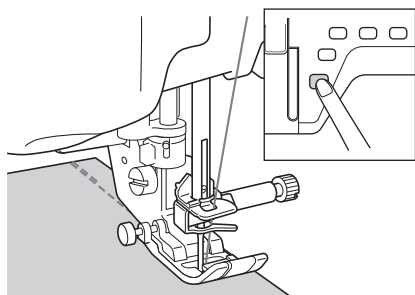
1 Select a stitch.

2 Press  to select the pivot setting.



→ The key appears as .

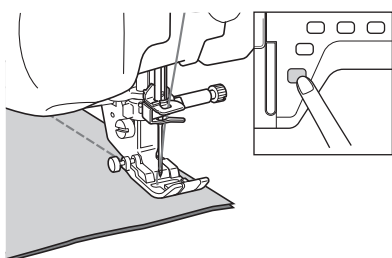
- Place the fabric under the presser foot with the needle at the starting point of the stitching, and then press the "Start/Stop" button. The machine will begin sewing.



Memo

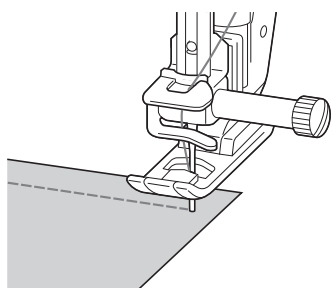
If you press the "Start/Stop" button to pause sewing, then press it again to continue, reverse stitches (or reinforcement stitches) will not be sewn.

- Press the "Start/Stop" button to stop the machine at the point where the sewing direction changes.



→ The machine stops with the needle in the fabric, and the presser foot is raised.

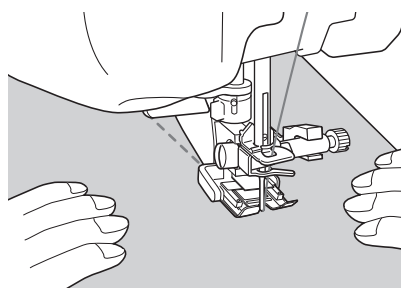
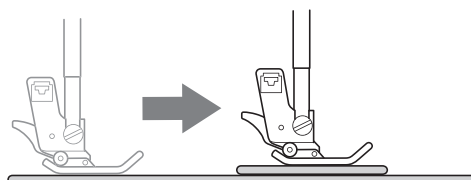
- Rotate the fabric, and then press the "Start/Stop" button.



→ The presser foot is automatically lowered, and sewing continues.

Automatic Fabric Sensor System (Automatic Presser Foot Pressure)

The thickness of the fabric is automatically detected and the presser foot pressure is automatically adjusted with an internal sensor while sewing, so your fabric is fed smoothly. The fabric sensor system works continuously while sewing. This function is useful for sewing over thick seams, or quilting.



- Press  .
→ The settings screen appears.
- Set "AUTOMATIC FABRIC SENSOR SYSTEM" to "ON".



- Press  to return to the original screen.

Free-motion Quilting

For free-motion quilting, use free-motion quilting foot “C” or free-motion open toe quilting foot “O” depending on the stitch that is selected, and set the machine to free-motion sewing mode. In this mode, the presser foot is raised to the necessary height for free-motion sewing.

We recommend attaching the foot controller and sewing at a consistent speed. You can adjust the sewing speed with the speed control slide on the machine.

■ Using Free-motion Quilting Foot “C”

The free-motion quilting foot “C” is used for free-motion sewing using the straight stitch needle plate.







Free-motion quilting foot “C”

⚠ CAUTION

- With free-motion quilting, control the feeding speed of the fabric to match the sewing speed. If the fabric is moved faster than the sewing speed, the needle may break or other damage may result.
- When using free-motion quilting foot “C”, be sure to use the straight stitch needle plate and sew with the needle in middle (center) needle position. If the needle is moved to any position other than the middle (center) needle position, the needle may break, which may result in injuries.

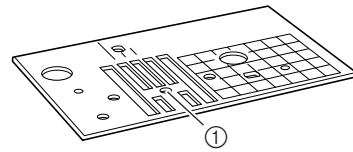
📖 Memo

- When starting to sew, the internal sensor detects the thickness of the fabric, and the quilting foot is raised to the height specified in the machine settings screen. Press  to display “FREE MOTION FOOT HEIGHT” on P. 1 of the settings screen. Press  or  to select the height that the quilting foot is raised. Increase the setting by pressing , for example, when sewing very stretchy fabric, so that it is easier to sew.



- In order to sew with a balanced tension, it may be necessary to adjust the upper thread tension. Test with a sample piece of fabric that is similar to your chosen fabric.

- 1 Follow steps on page 55 through 56 of the machine's Operation Manual to attach the straight stitch needle plate.




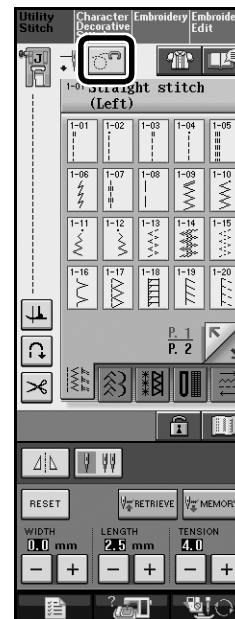
① Single hole




Memo

Notice that this plate has a single hole.

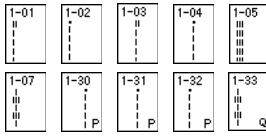
- 2 Press  to set the machine to free-motion sewing mode.



→ The key appears as , and the quilting foot is raised to the necessary height for free-motion sewing.



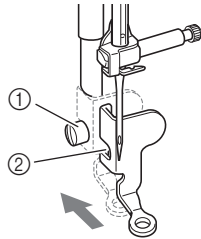
3 Select any of the following stitches.



→ Free-motion quilting foot “C” is indicated in the upper-left corner of the screen.

4 Remove the presser foot holder.

5 Attach free-motion quilting foot “C” at the front with the presser foot holder screw aligned with the notch in the quilting foot.



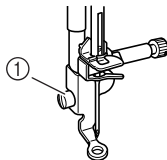
- ① Presser foot holder screw
- ② Notch



Note

Make sure that the quilting foot is attached properly and not slanted.

6 Hold the quilting foot in place with your right hand, and tighten the presser foot holder screw using the screwdriver with your left hand.

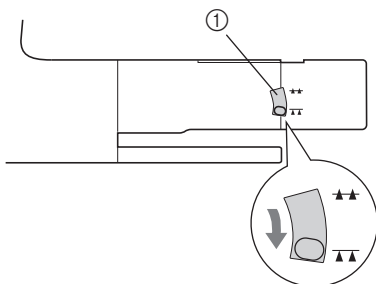


- ① Presser foot holder screw

CAUTION

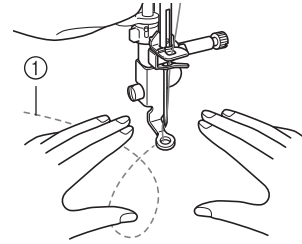
- Be sure to securely tighten the screws with the screwdriver. Otherwise, the needle may touch the quilting foot, causing it to bend or break.

7 Lower the feed dog position switch to to lower the feed dogs.



- ① Feed dog position switch

8 Use both hands to stretch the fabric taut, and then move the fabric at a consistent pace in order to sew uniform stitches roughly 2.0-2.5 mm (approx. 1/16 - 3/32 inch) in length.



- ① Stitch

9 Press to cancel the free-motion sewing mode.

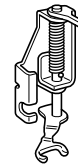


Memo

Do not be discouraged with your initial results. The technique requires practice.

■ Using Free-motion Open Toe Quilting Foot “O”

The free-motion open toe quilting foot “O” is used for free-motion quilting with zigzag or decorative stitches or for free-motion quilting of straight lines on fabric with an uneven thickness. Any stitch can be sewn with the free-motion open toe quilting foot “O”.



Free-motion open toe quilting foot “O”




Note

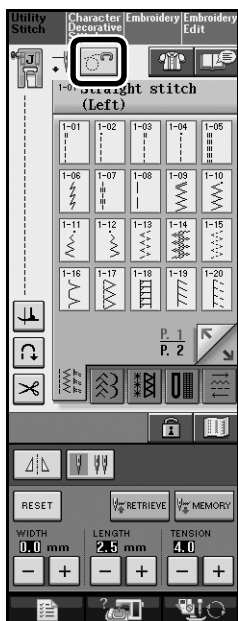
Free-motion open toe quilting foot “O” can also be used with the straight stitch needle plate. We recommend using free-motion open toe quilting foot “O” with free-motion sewing of fabrics of uneven thicknesses.




Memo

In order to sew with a balanced tension, it may be necessary to adjust the upper thread tension. Test with a sample piece of quilting fabric.

- 1 Press  to set the machine to free-motion sewing mode.



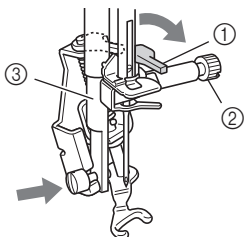
→ The key appears as , and the quilting foot is raised to the necessary height for free-motion sewing.

- 2 Select a stitch.

→ Free-motion open toe quilting foot "O" is indicated in the upper-left corner of the screen.

- 3 Remove the presser foot holder.

- 4 Attach free-motion open toe quilting foot "O" by positioning the pin of the quilting foot above the needle clamp screw and aligning the lower-left of the quilting foot and the presser bar.



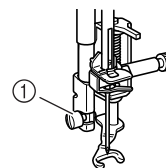
- 1 Pin
- 2 Needle clamp screw
- 3 Presser bar



Note

Make sure that the quilting foot is not slanted.

- 5 Hold the quilting foot in place with your right hand, and tighten the presser foot holder screw using the screwdriver with your left hand.

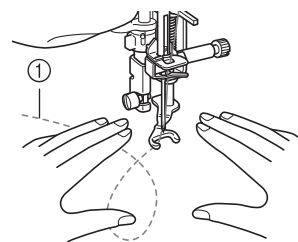


- 1 Presser foot holder screw


CAUTION

- Be sure to securely tighten the screws with the screwdriver. Otherwise, the needle may touch the quilting foot, causing it to bend or break.

- 6 Use both hands to stretch the fabric taut, and then move the fabric at a consistent pace in order to sew uniform stitches roughly 2.0-2.5 mm (approx. 1/16 - 3/32 inch) in length.



- 1 Stitch

- 7 Press  to cancel the free-motion sewing mode.

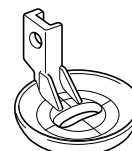


Memo

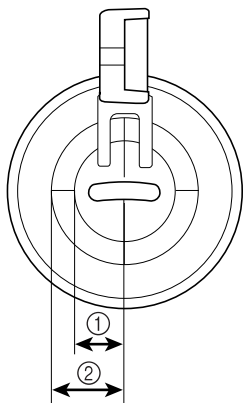
Do not be discouraged with your initial results. The technique requires practice.

Echo Quilting Using the Free-motion Echo Quilting Foot "E"

Sewing quilting lines at equal distances around a motif is called echo quilting. The quilting lines, which appear as ripples echoing away from the motif, are the distinguishing characteristic of this quilting style. Use the free-motion echo quilting foot "E" for echo quilting. Using the measurement on the presser foot as a guide, sew around the motif at a fixed interval. We recommend attaching the foot controller and sewing at a consistent speed.



Free-motion echo quilting foot “E” measurement



- ① 6.4 mm (approx. 1/4 inch)
- ② 9.5 mm (approx. 3/8 inch)

CAUTION

- With free-motion quilting, control the feeding speed of the fabric to match the sewing speed. If the fabric is moved faster than the sewing speed, the needle may break or other damage may result.

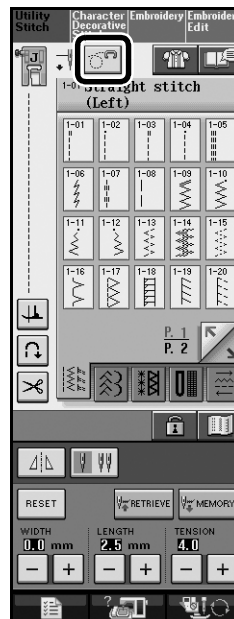
Memo

- When starting to sew, the internal sensor detects the thickness of the fabric, and the quilting foot is raised to the height specified in the machine settings screen. Press to display “FREE MOTION FOOT HEIGHT” on P. 1 of the settings screen. Press or to select the height that the quilting foot is raised. Increase the setting by pressing , for example, when sewing very stretchy fabric, so that it is easier to sew.



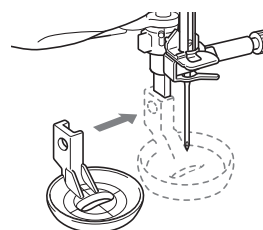
- In order to sew with a balanced tension, it may be necessary to adjust the upper thread tension. Test with a sample piece of quilting fabric.

- 1 Press to set the machine to free-motion sewing mode.

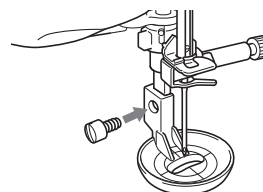


→ The key appears as , and the quilting foot is raised to the necessary height for free-motion sewing.

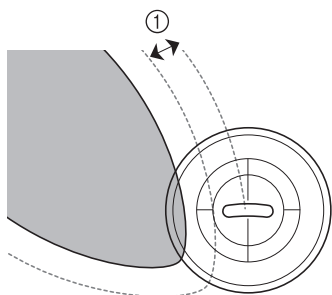
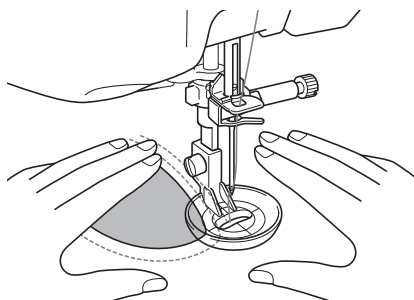
- 2 Select .
- 3 Remove the presser foot.
- 4 Remove the presser foot holder and the screw.
- 5 Position the free-motion echo quilting foot “E” on the left side of the presser bar with the holes in the quilting foot and presser bar aligned.



- 6 Tighten the screw.




- 7 Using the measurement on the quilting foot as a guide, sew around the motif.



① 6.4 mm (approx. 1/4 inch)


Finished project



- 8 Press  to cancel the free-motion sewing mode.

Returning to the Beginning of the Pattern

When sewing character/decorative stitches, you can return to the beginning of the pattern after trial sewing or when the stitching is sewn incorrectly.

- 1 Press the “Start/Stop” button to stop the machine, and then press .

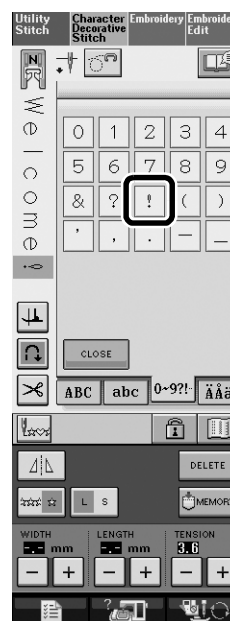


→ Sewing returns to the beginning of the selected pattern (“W”) from the point where sewing was stopped.



Memo

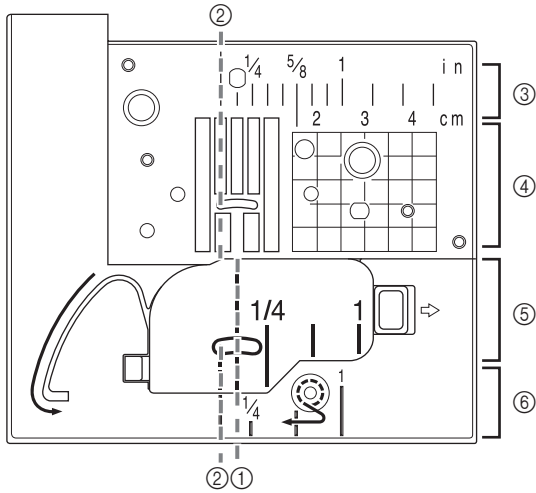
If this key is pressed when sewing is stopped, patterns can be added at the end of a combined stitch pattern. (In this example, “!” is added.)



- 2 Press the “Start/Stop” button to continue sewing.

Measurements on the Bobbin Cover

The measurements on the bobbin cover are references for patterns with a middle (center) needle position. The measurements on the needle plate and the needle plate cover are references for stitches with a left needle position.

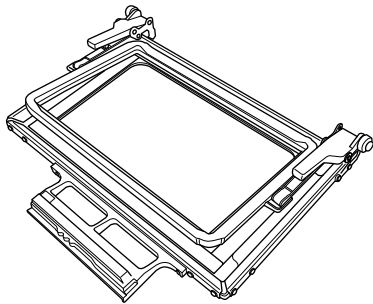


- ① For stitches with a middle (center) needle position
- ② For stitches with a left needle position
- ③ Left needle position on the needle plate <inch>
- ④ Left needle position on the needle plate <cm>
- ⑤ Middle (center) needle position on the bobbin cover <inch>
- ⑥ Left needle position on the needle plate cover <inch>

Features for Embroidery Edit mode

Embroidering with the Border Embroidery Frame

Since the fabric can easily be repositioned and rehooped if the border embroidery frame is used, this frame is useful for embroidering repeated patterns while sliding the fabric. An added feature of this frame is that the pressure applied by the upper and lower frames does not leave an indentation in the fabric. An area of 10 cm × 18 cm can be embroidered. For details on the border embroidery frame, refer to the operation manual included with the optional border embroidery frame.



CAUTION

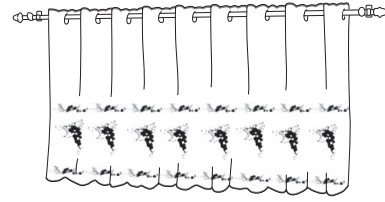
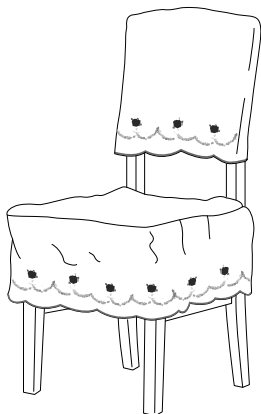
- Do not leave the border embroidery frame within the reach of children, otherwise injuries may result.

Note

- When the border embroidery frame is not being used, unlock it before storing it.

Sample Projects Using the Border Embroidery Frame


We recommend using the border embroidery frame when embroidering repeated patterns at the edges of items such as curtains, chair covers, bed covers, tablecloths and blankets.



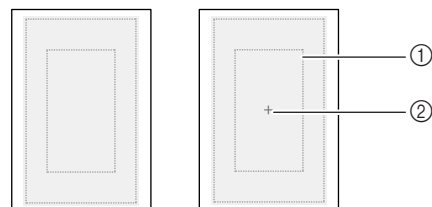
Memo

- For details on the border function, refer to “Designing Repeated Patterns” in chapter 6 of the Operation Manual for the sewing machine.

Frame Display Settings for Border Embroidery Frame

- Press .
- From the embroidery frame display settings, select one of the embroidery frame displays for the border embroidery frame.

* Of the 12 settings available, there are two for border embroidery frames.



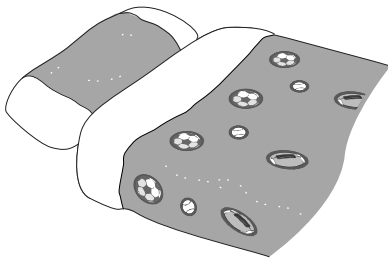
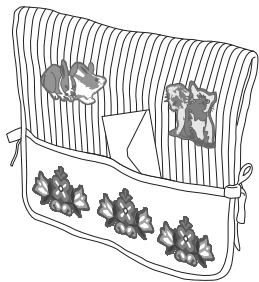
- Border embroidery frame embroidering area
- Center line

Creating an Appliqué Piece

Appliqué pieces can be created from the built-in patterns and patterns on embroidery cards. This is convenient for fabrics that cannot be embroidered or when you wish to attach an appliqué to a garment.

■ Sample Projects Using Created Appliqué Pieces

Appliqué pieces can be attached to items that you already own, such as bags and clothes, to customize them. When attached to denim, the appliqué pattern really stands out. Animal and fruit appliqués can be used as children's toys.



■ Creating an Appliqué Piece

As an example, the following pattern will be used to create an appliqué piece.

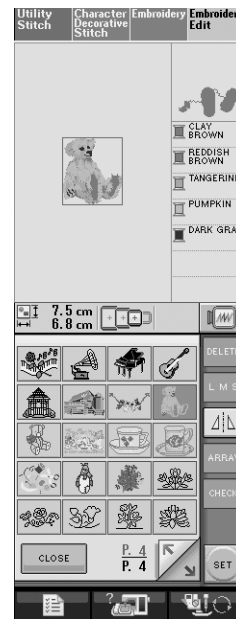


Note

- Felt or denim fabrics are recommended to make the appliqué piece. Depending on the pattern and fabric used, lighter weight fabrics may cause the stitching to appear smaller.
- For best results, be sure to use stabilizer material for embroidering.
- Select a frame that matches the pattern size. Frame options are displayed on the LCD screen.
- When making appliqué pieces, do not use the border embroidery frame. Depending on the pattern density and fabric used, shrinkage of the stitching may occur.

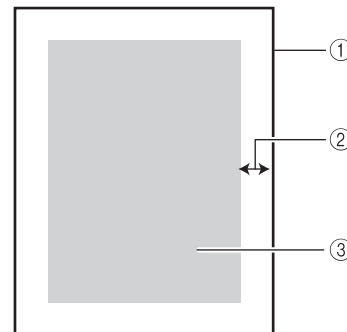
1 Press **Embroidery Edit**.

2 Select the pattern, and edit it if necessary.




Note

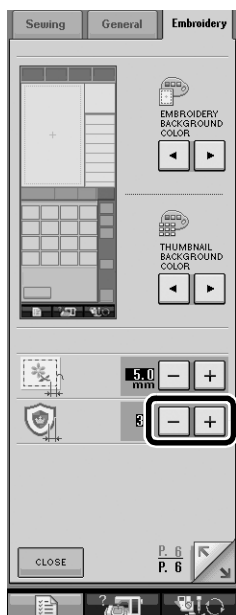
- Finish editing the pattern before selecting the appliqué setting. If the pattern is edited after selecting the appliqué setting, the appliqué stitching and pattern may become misaligned.
- Since an outline is added, the pattern for an appliqué piece (when the appliqué setting is selected) will be larger than the original pattern. First, adjust the size and position of the pattern as shown below.



- ① Embroidering area
- ② Approx. 1 cm
- ③ Pattern size

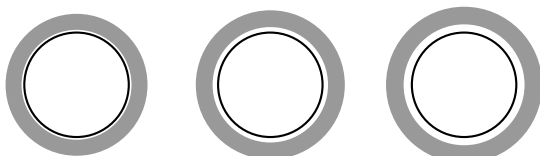
3 Press , and then display P. 6 of the settings screen.

4 Use   to specify the distance between the pattern and the appliqué outline.



Memo

- Three settings are available: 1 (narrow), 2 (normal) and 3 (wide).



①

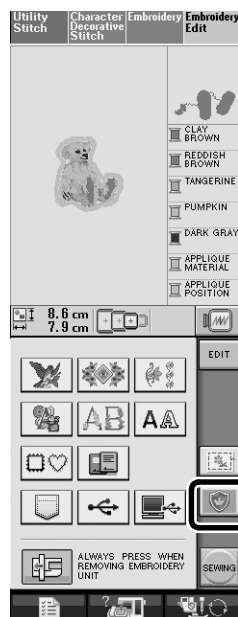
②

③


- The setting remains selected even if the machine is turned off.

5 Press  to return to the previous screen.

6 Press  to select the appliqué setting.



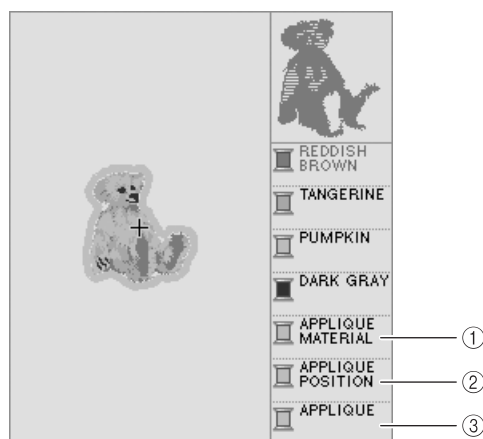
Memo

- To cancel the setting, press .
- If no pattern is selected, the key appears gray and cannot be selected.

→ The steps for creating the appliqué piece are added to the sewing order.

Memo

- Three steps are added to the sewing order: appliqué cutting line, position of pattern placement on the garment, and appliqué stitching.



- ① Cutting line for appliqué
- ② Position of pattern placement on garment
- ③ Appliqué stitching



Note

- An appliqué piece cannot be created if the pattern is too large or too complicated or a combined pattern is separated. Even if the selected pattern fits within the embroidering area, the entire appliqué pattern may exceed the embroidering area when the outline is added. If an error message appears, select a different pattern or edit it.

7 Press .

8 Fuse or stick a piece of stabilizer to the back of the felt or denim fabric to be used as the appliqué piece.

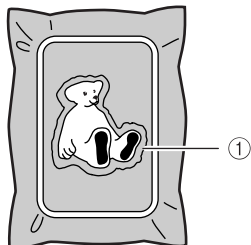


Note

- For best results, be sure to use stabilizer material for embroidering.

9 Hoop the appliqué fabric in the embroidery frame, attach the embroidery frame to the machine, and then start embroidering.

10 After the pattern is embroidered, thread the machine with the thread for the cutting line, and then sew the cutting line (APPLIQUE MATERIAL).



① Cutting line for appliqué

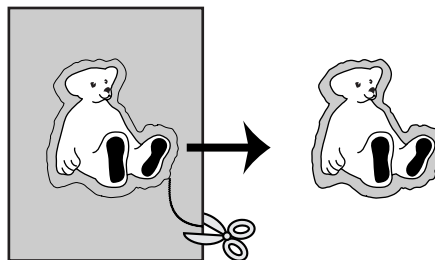


Memo

- We recommend using thread for the cutting line that is closest to the color of the fabric.

11

Remove the appliqué material from the embroidery frame, and then carefully cut along the stitching. After cutting, carefully remove all of the cutting line thread.

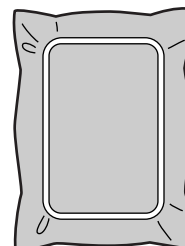


Note

- Depending on the pattern density and fabric used, there may be shrinking of the pattern or the appliqué may be misaligned with the placement line. We recommend cutting slightly outside of the cutting line.
- When using patterns that are vertically and horizontally symmetrical, use a chalk pen to indicate the pattern orientation before cutting it out.
- Carefully cut out the pattern on the outline you just sewed. Do not cut inside the cutting line, otherwise the appliqué fabric will not be caught by the appliqué stitch.

12

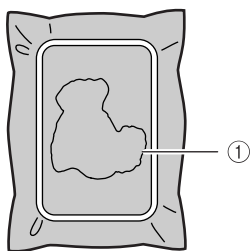
Use two layers of adhesive water-soluble stabilizer material with their sticky sides together, and then hoop them in the embroidery frame.



Note

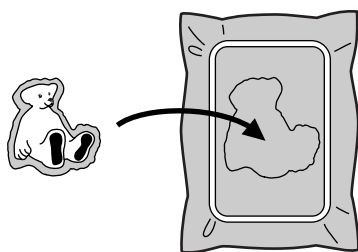
- If water-soluble stabilizer is used, it is not necessary to remove the stabilizer material after sewing the appliqué outline. To reduce shrinkage of the pattern, we recommend using water-soluble stabilizer.
- Put together two layers of water-soluble stabilizer, otherwise the stabilizer material may tear during embroidering.

- 13** Thread the machine with the thread for the outline from step 15, and then sew the placement line for the appliqué position (APPLIQUE POSITION).



① Pattern placement line

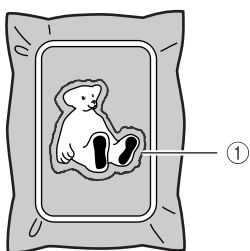
- 14** Lightly apply glue or spray adhesive, and paste the appliqué piece so that it aligns with the placement line.



Note

- Before pasting the appliqué piece down, make sure the appliqué piece is positioned correctly within the placement line.

- 15** With the machine threaded using the thread for the outline from step 13, sew the outline (APPLIQUE).



① Outline of appliqué piece



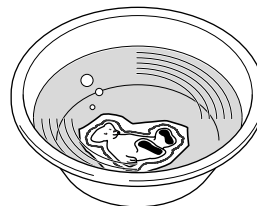
Memo

- The outline is sewn using satin stitching.
- Some glue may get onto the presser foot, needle, and needle plate at this time. Finish embroidering the appliqué pattern, and then clean off the glue.

- 16** After embroidering is finished, remove the stabilizer material from the embroidery frame.

- 17** Use scissors to cut the excess water-soluble stabilizer from outside the appliqué outline.

- 18** Soak the appliqué piece in water to dissolve the water-soluble stabilizer.



- 19** Dry the appliqué piece, and then iron it if necessary.



Note

- Do not apply a strong force when ironing, otherwise the stitching may be damaged.

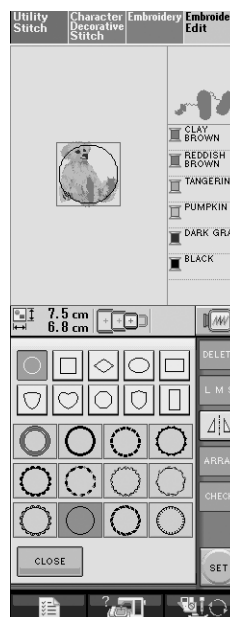
Using a Frame Pattern for the Outline

Using a frame pattern, the desired shape can be added as the outline of the appliqué.

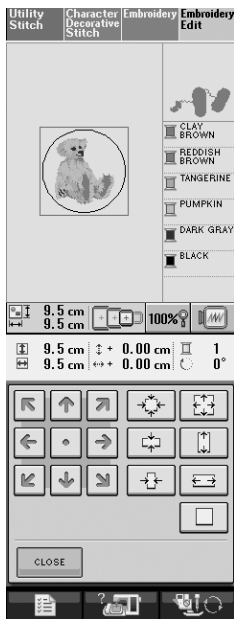



- 1** Perform the operations described in steps 1 through 5 of “Creating an Appliqué Piece”.

- 2** Select the desired frame shape and pattern, and add it to the appliqué pattern.



- 3 Edit the frame pattern to fit the size of the appliqué pattern.

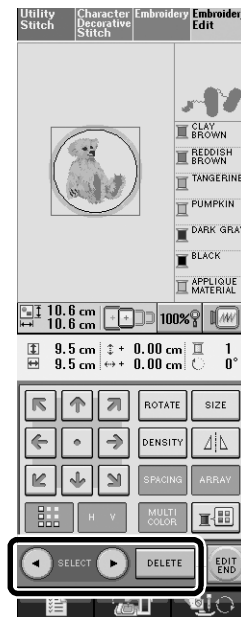


- 4 Press  to select the appliqué piece setting.





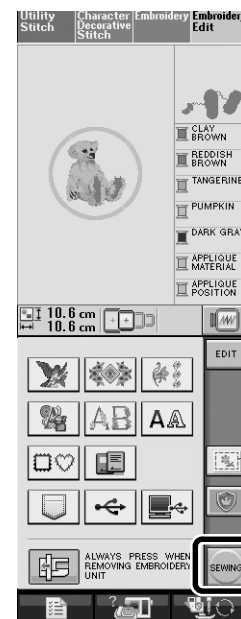
- 5 Press .

- 6 Use  to select the frame pattern, and then press .



→ The frame pattern is deleted.

- 7 Press , and then press .



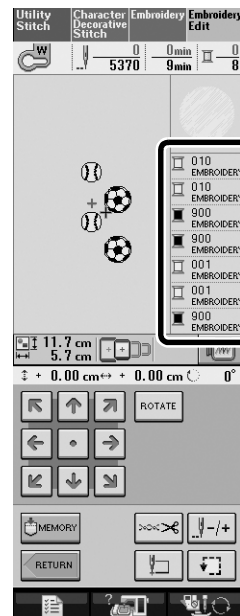
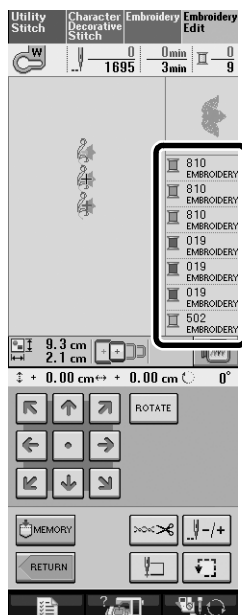
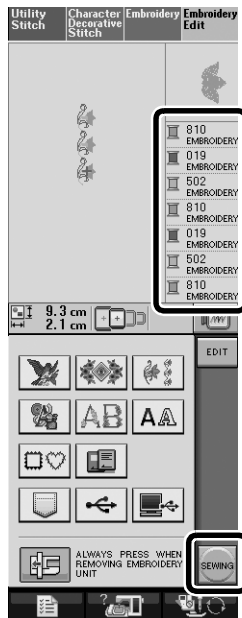
- 8 Continue with step 8 of “Creating an Appliqué Piece” to complete the appliqué piece.

Color Sorting Repeated Patterns

The sewing order of combined border embroidery patterns in the Embroidery Edit screen can be automatically changed so that the same color can be continuously sewn in each pattern that is repeated. This allows you to continue sewing without repeatedly changing the upper thread or changing the sewing order manually.

Memo

- In combined stitch patterns that contain two or more border patterns or other patterns combined with border patterns, the sewing order of only the border patterns is changed.
- When a group of two or more patterns using border patterns is repeated, the sewing order is changed so that the same color can be sewn continuously in each pattern.



Editing Character Patterns

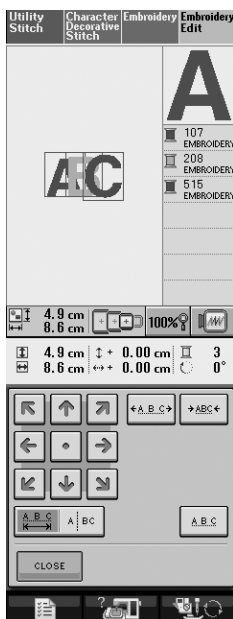
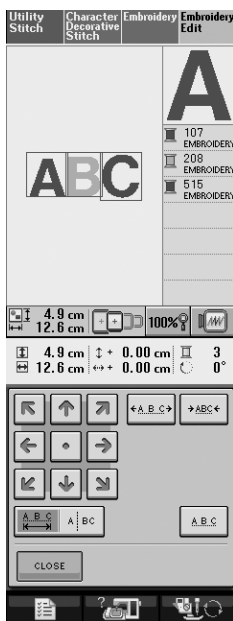
Reducing Character Spacing

In the Embroidery Edit screen, the spacing between characters can be reduced to 50% of the narrowest character in the group.



Note

- It is not recommended to edit data and transfer to other or older version machines. Some features do not apply in other machines, so problems may occur.
- Character spacing can be reduced only when characters are arranged normally on a straight line.



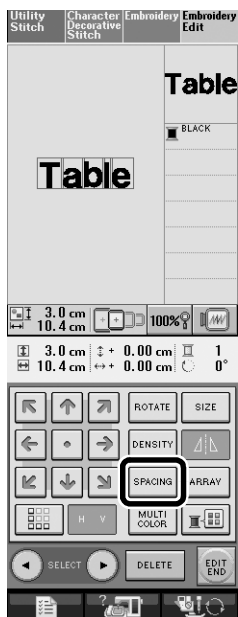
Separating Combined Character Patterns

Combined character patterns can be separated to adjust the character spacing or to separately edit the patterns after all characters have been entered.

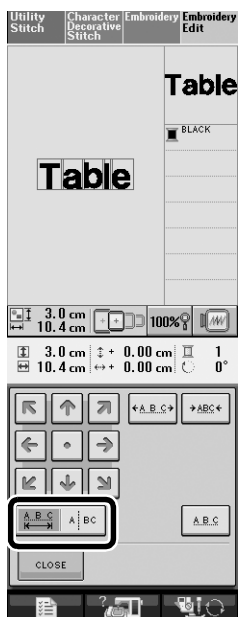
- 1 Press **Embroidery Edit**.
- 2 Press **AAA**, and then select the font.
- 3 Combine the characters, and then press **SET**.



4 Press **SPACING**.

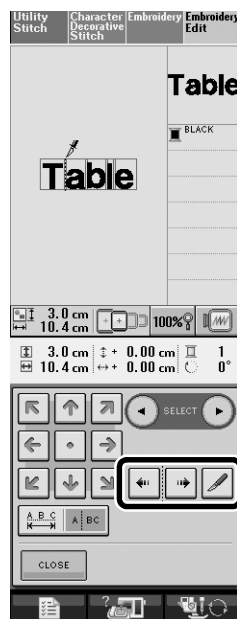


5 Press **A B C | A | B C**.



→ The key appears as **A B C | A | B C**.

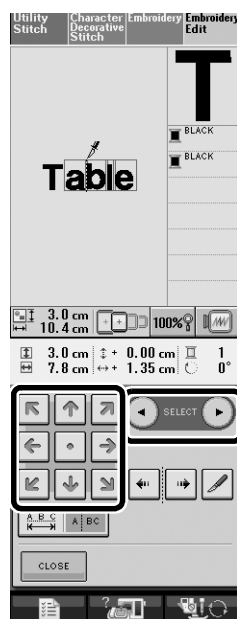
6 Use **←|→** to select where the pattern is to be separated, and then press **✏** to separate it. For this example, the pattern will be separated between "T" and "a".



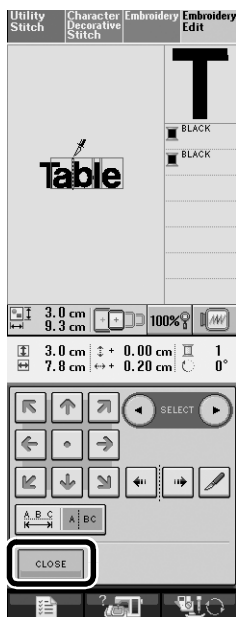
Note

- A separated character pattern cannot be combined again.

7 Use **←|SELECT|→** to select a pattern, and then use **←|→** to adjust the character spacing.



8 Press **CLOSE**.



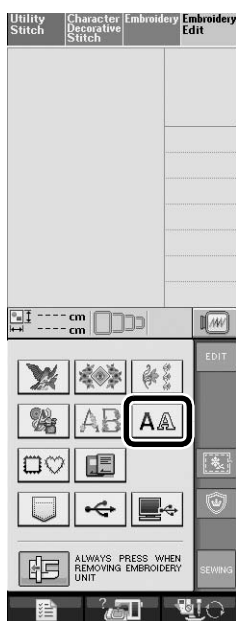
Selecting a Small Font/Cyrillic Font

Two small fonts and two Cyrillic fonts have been added. For details on the patterns, refer to the Quick Reference Guide.

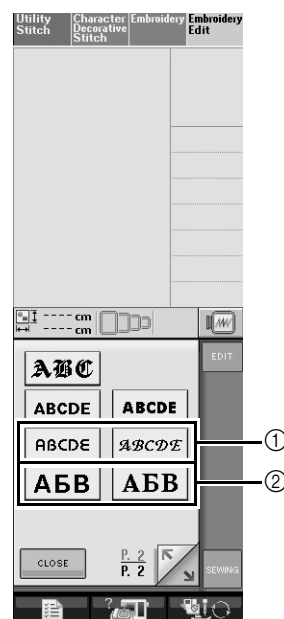
The following procedure describes how to select patterns in embroidery edit mode.

1 Press **Embroidery Edit**.

2 In the pattern selection screen, press **AA**.



3 Select the desired font from the small fonts and Cyrillic fonts on P. 2.



- ① Small fonts
- ② Cyrillic fonts

4 Enter the characters.



Note

- For best results when sewing small font patterns,
 - Reduce the thread tension to less than what is used when embroidering normal designs
 - Sew at a speed slower than what is used when embroidering normal designs.
 - Decrease the size of the thread to size 80 or 100 weight thread.

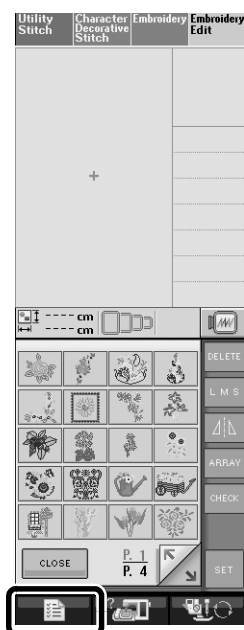
About Settings Screen

Changing the Background Colors of the Embroidering Patterns







In the settings screen, the background colors can be changed for the embroidery pattern and pattern thumbnails. Depending on the pattern color, select the desired background color from the four that are available. Different background colors can be selected for the embroidery pattern and pattern thumbnails.

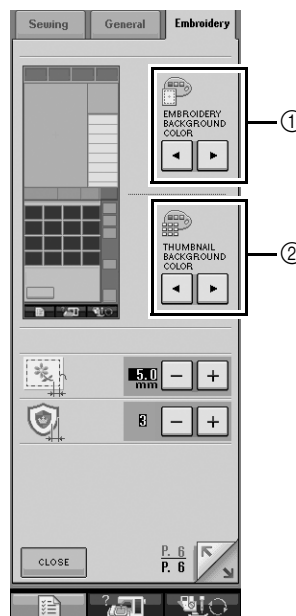
1 Press **Embroidery** or **Embroidery Edit**.

2 Press .



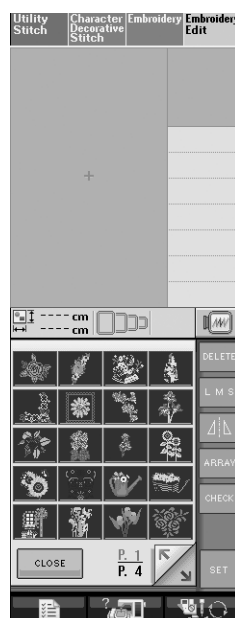
3 Display P. 6 of the settings screen.

4 Use   to select the background color from the four settings available (, ,  and ).



- ① Embroidery pattern background
- ② Pattern thumbnails background

5 Press **CLOSE** to return to the previous screen.



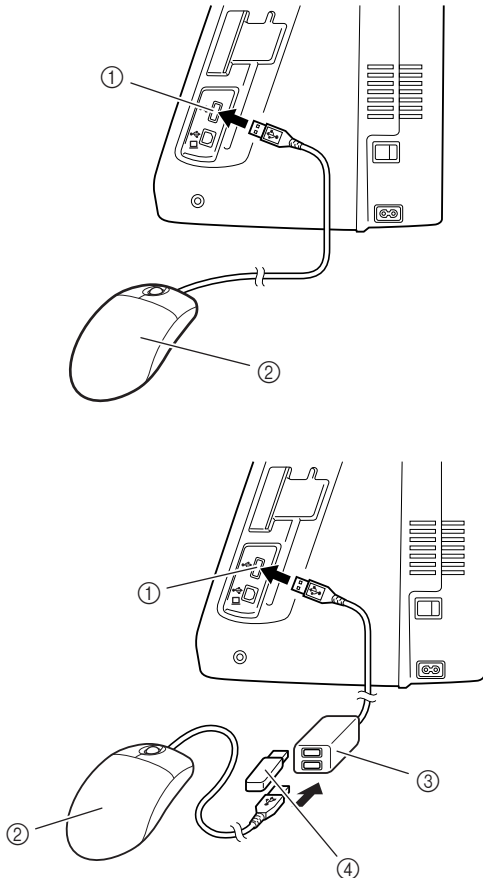
Memo

- The setting remains selected even if the machine is turned off.

Screens Operations Performed Using a USB Mouse

If a USB mouse is connected to the sewing machine, the mouse can be used to perform operations in the screens.

In addition, a USB hub can be connected so that USB media and a USB mouse can be used at the same time.



- ① USB port connector for media
- ② USB mouse
- ③ USB hub
- ④ USB media

Note

- Some mouse types cannot be used to operate the machine. For details on the USB mouse types that are compatible, check <http://solutions.brother.com/>.
- A USB mouse and USB hub can be connected or disconnected at any time.
- Only the left mouse button and its wheel can be used to perform operations. No other buttons can be used.
- Do not insert two or more USB media into a USB hub. Only one USB media can be recognized.

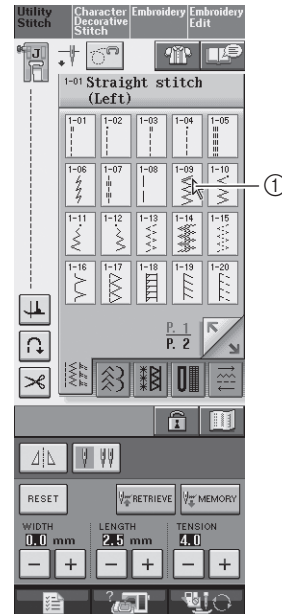
Clicking a Key

When the mouse is connected, the pointer appears in the screen. Move the mouse to position the pointer over the desired key, and then click the left mouse button.

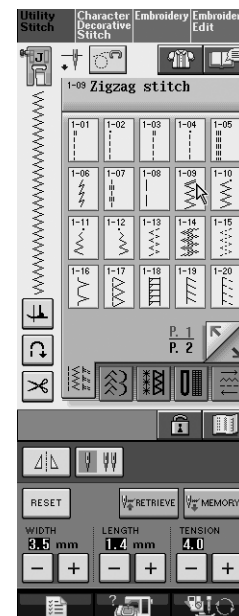
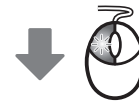


Memo

- Double-clicking has no effect.








① Pointer

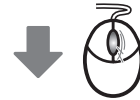
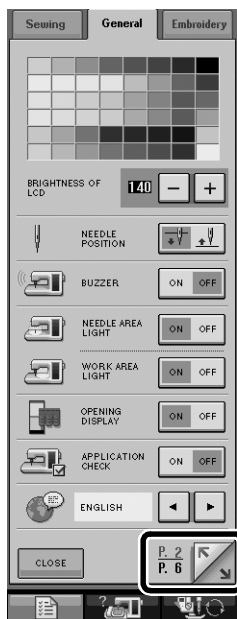
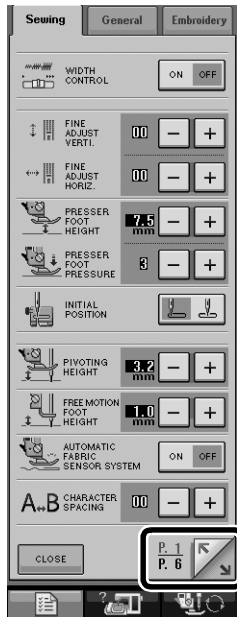


■ Changing Pages

Rotate the mouse wheel to switch through the tabs of the pattern selection screens.



Memo

- If  for additional pages is displayed, rotate the mouse wheel to display the next page. In the  or , click the left mouse button with the pointer on  or  to move down to the next part of a page.



■ Moving Embroidery Patterns

In the Embroidery and Embroidery Edit screens, patterns can be moved by dragging them to the desired position.



- 1 Select a pattern.
- 2 Press  or  to display the editing screen.
- 3 Move the mouse to position the pointer over the desired pattern, and then drag the pattern to the desired position. In addition, patterns can be dragged to their desired positions by directly touching the screen with your finger or touch pen.

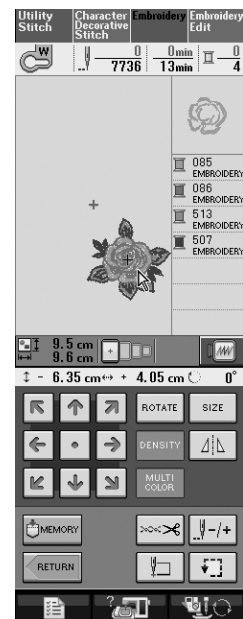
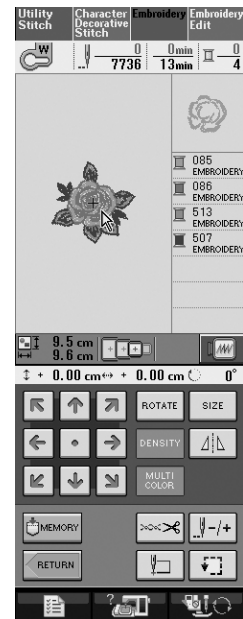
Memo

- Patterns cannot be moved in screens where



does not appear.

- If  in the Embroidery Edit screen is pressed to display an enlargement of the pattern, the pattern cannot be moved by dragging it. Press  in the screen to move the pattern.



■ Selecting Combined Embroidery Patterns

When patterns are combined in the Embroidery Edit screen, patterns can be selected by clicking them. Move the mouse to position the pointer over the desired pattern, and then click the left mouse button. In addition, patterns can be selected by directly touching the screen with your finger or touch pen.



Memo

- If a pattern that is overlapping cannot be selected, touch in the screen to select it.



Changing the Pointer Shape When a USB Mouse Is Used

In the settings screen, the shape can be selected for the pointer that appears when a USB mouse is connected. Depending on the background color, select the desired shape from the three that are available.



Memo

- For details on changing the background color, refer to “Changing the Background Colors of the Embroidering Patterns” on page 21.

- 1 Press .
- 2 Display P. 3 of the settings screen.
- 3 Use to select the pointer shape from the three settings available (, and).



- 4 Press to return to the previous screen.




Memo

- The setting remains selected even if the machine is turned off.

Basting Embroidery




Before embroidering, basting stitches can be sewn along the outline of the pattern. This is useful for embroidering fabric that cannot have stabilizer material affixed with an iron or adhesive. By attaching stabilizer material to the fabric, shrinkage of the stitching or misaligned pattern can be prevented.

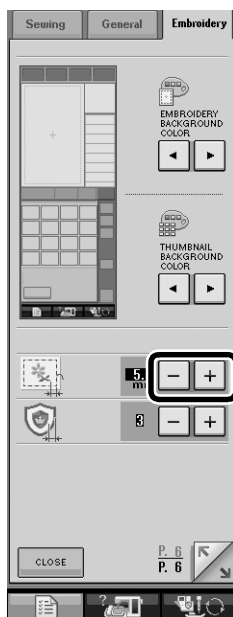
- 1 Press .
- 2 Select the pattern, and edit it if necessary.



Note



- Finish editing the pattern before selecting the basting setting. If the pattern is edited after selecting the basting setting, the basting and pattern may become misaligned, and the basting stitches may be difficult to remove after embroidering is complete.

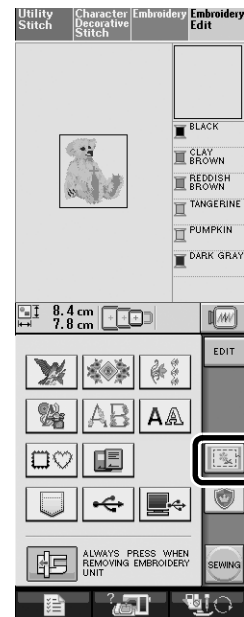
- 3 Press , and then display P. 6 of the settings screen.
- 4 Use   to specify the distance from the pattern to the basting stitching.




Memo

- The higher the setting, the farther the basting is from the pattern.
- The setting remains selected even if the machine is turned off.


- 5 Press  to return to the previous screen.
- 6 Press  to select the basting setting.



Memo

- To cancel the setting, press .
- If no pattern is selected, the key appears gray and cannot be selected.

→ Basting is added to the beginning of the sewing order.

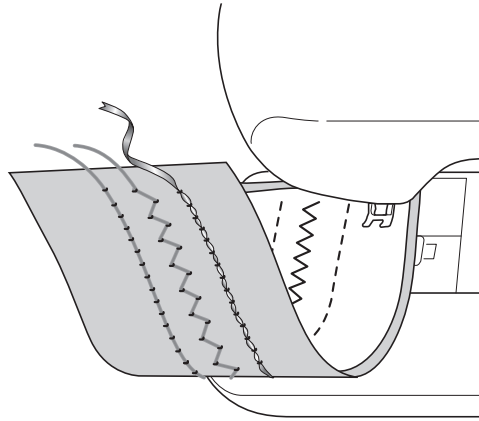
- 7 Press  to start embroidering.
- 8 When embroidering is finished, remove the basting stitching.



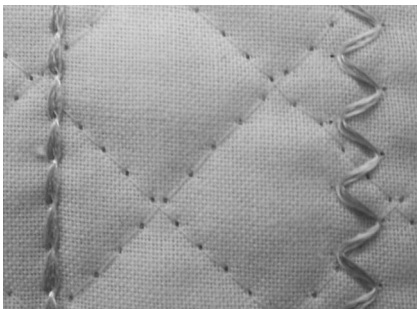
About Bobbin Work

You can create designs, which gives a three-dimensional appearance to the surface of the fabric, by winding the bobbin with heavy weight thread or ribbon too thick to be fed through the sewing machine needle and sewing on the wrong side of the fabric.

Bobbin work is sewn using the special bobbin case (gray) and bobbin cover with tabs included with this kit.



Utility stitches



Decorative stitches
(For models with built-in decorative stitches)

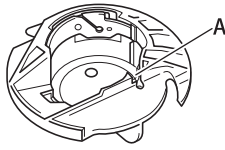


Free-motion sewing

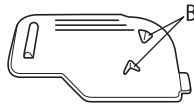


Required Materials

■ Bobbin Case and Bobbin Cover



- ① Bobbin case (gray)
This bobbin case is only for bobbin work. The bobbin case will allow you to sew with thick thread or narrow ribbon that cannot be inserted through the eye of the needle. There is a notch at the location indicated by the letter "A".



- ② Bobbin cover
There are ribs "B" on the back of the bobbin cover. The ribs press down on the bobbin so it is not lifted out when thick thread is being fed from it.

■ Lower Thread

We recommend the following types of threads for bobbin work.



No.5 or finer hand embroidery thread or decorative thread



Flexible woven ribbon (approx. 2mm (approx. 5/64 inch) recommended)



Fine embroidery ribbon (silk or silk-like material) (3.5 mm (approx. 1/8 inch) or less, recommended)

* If ribbon is to be used, we recommend that tension not be applied. Refer to page 31 for more detailed instructions.



Note

- Do not use thread heavier than No.5 hand embroidery thread.
- Some threads may not be appropriate for bobbin work. Be sure to sew trial stitches before sewing on your project.

■ Upper Thread

Sewing machine embroidery thread (polyester thread) or monofilament (transparent nylon) thread. If you do not wish for the upper thread to be visible, we recommend using transparent nylon monofilament thread or polyester light weight thread (50wt. or above) that is the same color as the lower thread.

■ Needle

Use a needle appropriate for the upper thread and fabric being used. For details, refer to your machine's Operation Manual.

■ Presser Foot

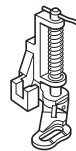
Utility stitches or decorative stitches: Monogramming foot "N"



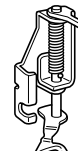
Note

- If monogramming foot "N" was not provided with your machine, use zigzag foot "J".
- When sewing a pattern described in the machine's Operation Manual and the monogramming foot "N" is recommended, be sure to use this foot, otherwise the desired results may not be achieved.

Free-motion sewing: Use the free-motion quilting foot provided with your machine. If you do not have a free-motion quilting foot, contact your nearest authorized dealer to purchase one.



Free-motion quilting foot



Free-motion open toe quilting foot "O"

■ Fabric

Be sure to sew trial stitches on a piece of scrap fabric, which includes the same threads and fabric as what is being used in your project.



Note

- The sewing results may be affected by the type of fabric used. Before sewing your project, be sure to sew trial stitches on a piece of scrap fabric that is the same as the fabric used in the project.

Upper Threading

1 Install a needle appropriate for the upper thread and fabric to be used.

For details on installing the needle, refer to the machine's Operation Manual.

2 Attach the presser foot.

For the presser foot to be used, refer to "Required Materials" on page 28.

For details on attaching the presser foot, refer to the machine's Operation Manual.

3 Thread the machine with the upper thread.

For details on threading the machine, refer to the machine's Operation Manual.

Preparing the Bobbin Thread

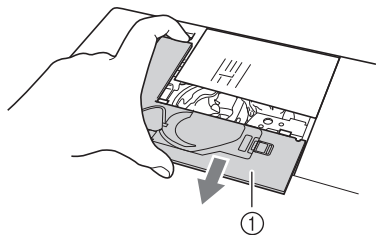
In order to create bobbin work, the bobbin case must be replaced with the one for bobbin work. Before creating bobbin work, clean the bobbin case and the race.

1 Raise the needle and presser foot, and then turn off the machine.

2 Remove the flat bed attachment.

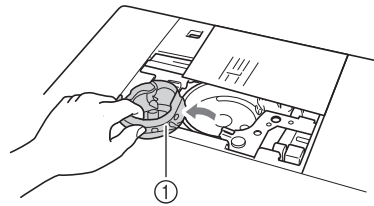
3 Remove the needle plate cover.

For details on removing the needle plate cover, refer to the machine's Operation Manual.



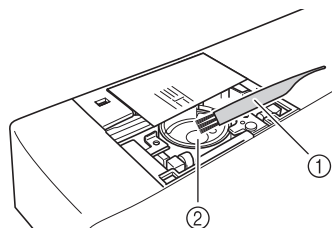
① Needle plate cover

4 Remove the bobbin case.



① Bobbin case

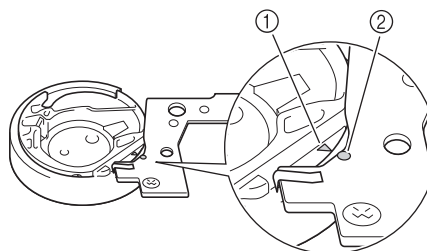
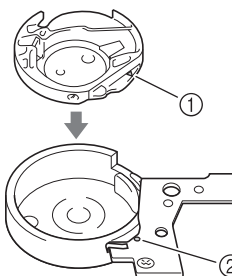
5 Use the cleaning brush included with the machine or a vacuum cleaner to remove any lint and dust from the race and its surrounding area.



① Cleaning brush
② Race

6 Wipe the bobbin case (gray) with a soft lint free cloth to clean it.

7 Insert the bobbin case (gray) so that the ▲ mark aligns with the ● mark as shown below.



① ▲ mark
② ● mark



Note

- The bobbin case (gray) cannot be used for sewing in any way other than bobbin work. After sewing bobbin work, refer back to the steps in “Preparing the Bobbin Thread” for removing and cleaning the bobbin case (gray), and then reinstall the standard bobbin case (black).

! CAUTION

- Be sure to use the bobbin case (gray) when creating bobbin work. Using any other bobbin case may result in the thread becoming tangled or damage to the machine.
- Make sure that the bobbin case is correctly installed. If the bobbin case is incorrectly installed, the thread may become tangled or the machine may be damaged.

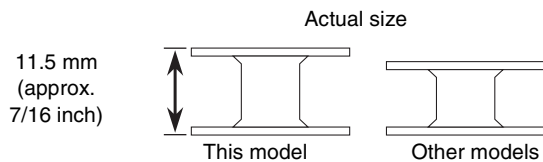
8

Wind a decorative thread around the bobbin by hand. After winding the bobbin so it is filled as shown below (about 80%), cut the thread.



! CAUTION

- Be sure to use the machine’s included bobbin or one designed specifically for this machine. Using any other bobbin may result in damage or injuries.

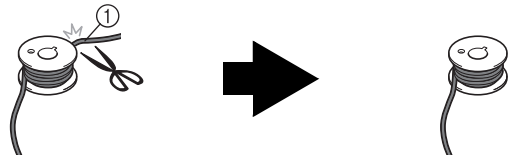


Note

- Slowly and evenly wind the thread around the bobbin.
- For best results, wind the bobbin so the thread is snug and not twisted.

9

Using scissors carefully trim the thread tail as close to the bobbin as possible.



① Beginning of wound thread

! CAUTION

- If thread extends beyond the top of the bobbin too much, the thread may become tangled or the needle may break.

10

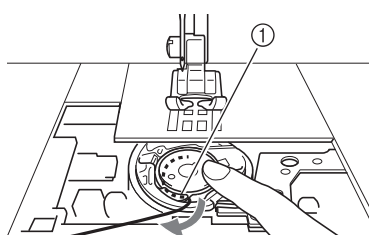
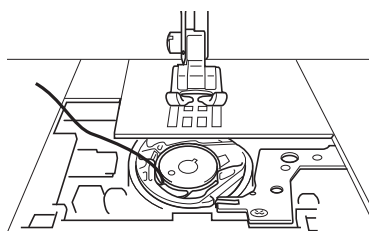
Install the bobbin wound with thread.

Whether or not tension should be applied to the bobbin thread depends on the type of thread being used.

■ When Tension is Applied to the Bobbin Thread

Insert bobbin into bobbin case so the thread unwinds from the left side.

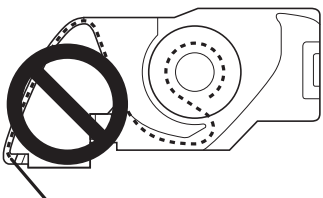
Then correctly pass the thread through the tension spring as shown below.



① Tension spring

⚠ CAUTION

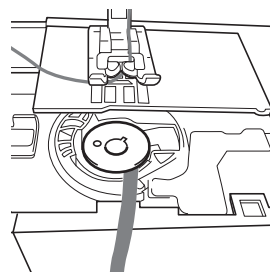
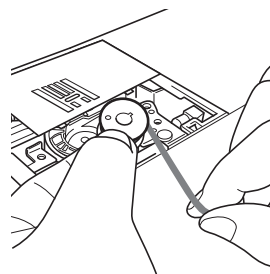
- When winding the bobbin, make sure the thread is not frayed. Sewing with frayed thread may result in the thread catching on the tension spring of the bobbin case, the thread becoming tangled or damage to the machine.
- Do not guide the bobbin thread through the groove in the needle plate cover, otherwise the lower threading cannot be done correctly.



■ When Tension is Not Applied to the Bobbin Thread

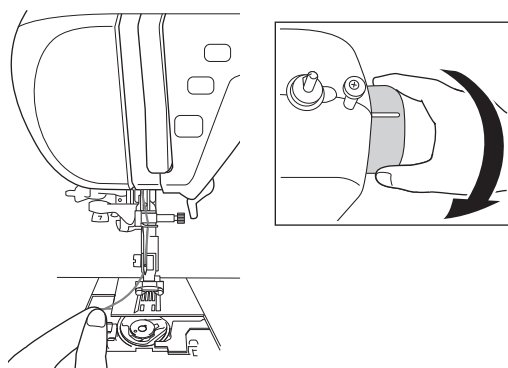
If the bobbin thread in the trial stitching is too tight and adjusting the bobbin case tension does not help (*As described in "Adjusting the Tension of the Bobbin Thread" on page 36), do not pass the thread through the tension spring.

Hold the bobbin with your left hand so the thread unwinds from the right side and hold the end of the thread with your right hand.

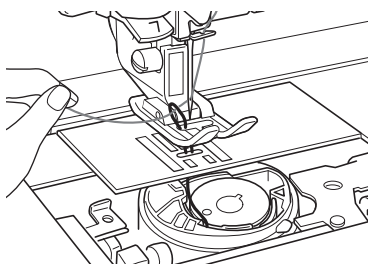


11 Pull out about 8 cm (approx. 3 inches) of bobbin thread.

12 Lightly hold the end of the upper thread while turning the handwheel toward you (counterclockwise) until the mark on the handwheel aligns with the center top of machine.



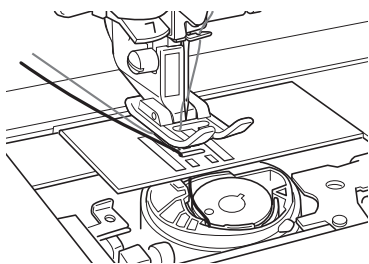
- 13** Gently pull the upper thread to bring the bobbin thread up through the needle plate.



→ A loop of the bobbin thread comes out through the hole in the needle plate.

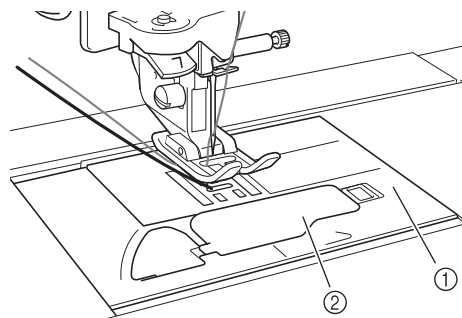
- 14** Insert tweezers through bobbin thread loop and pull bobbin thread above the needle plate.

- 15** Align the upper thread and bobbin thread, and then pull out about 10 cm (approx. 4 inches) of the threads and pass them under the presser foot toward the rear of the machine.



- 16** Install the needle plate cover and bobbin cover.

For details on installing the needle plate cover, refer to the machine's Operation Manual.



- ① Needle plate cover
② Bobbin cover

! CAUTION

- When creating bobbin work, use the bobbin cover with tabs, otherwise the thread may become tangled or the needle may break.

💡 Note

- When installing the needle plate cover, do not allow it to pinch the thread.

- 17** Install the flat bed attachment.

💡 Note

- When installing the flat bed attachment, do not allow it to pinch the thread.
- When the bobbin thread is replaced with a new one, be sure to repeat the procedure from **1** on "Preparing the Bobbin Thread", otherwise the lower threading will not be done correctly.

→ This completes the upper and lower threading.

Creating Bobbin Work

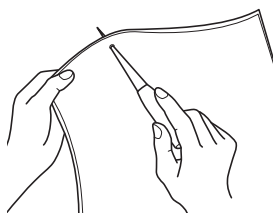
Positioning the Fabric and Sewing



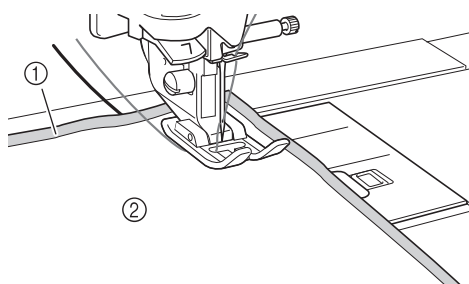
Note

- Be sure to sew trial stitches using same fabric and threads as your project in order to check the sewing results.
- The bobbin thread may become tangled due to the type of pattern and thread that are being used. Since this may cause the needle to break, immediately stop sewing if this occurs. Turn off the machine and cut out the tangled thread with scissors. Then, clean the race and bobbin case as described in "Preparing the Bobbin Thread" on page 29.

- 1 Place a lightweight tear-away stabilizer on top (wrong side) of the fabric.
- 2 Using an awl, punch a hole in the fabric at the beginning of stitching so the bobbin thread can be fed through the fabric.

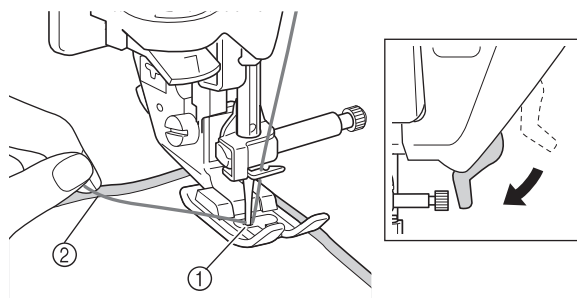


- 3 Use the presser foot lever to raise the presser foot.
- 4 With the wrong side facing up, place the fabric with stabilizer under the presser foot.



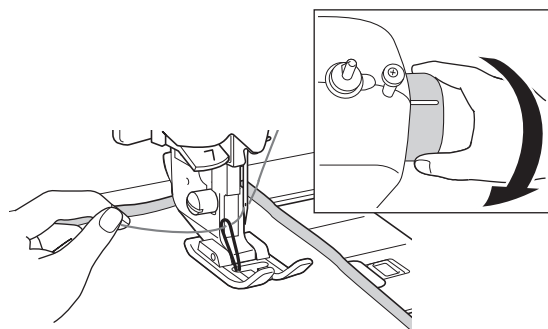
- 1 Wrong side of fabric
- 2 Stabilizer on wrong side of fabric

- 5 Turn the handwheel toward you (counterclockwise) to feed the needle into the punched hole. Position the upper thread over the presser foot and lightly hold then, lower the presser foot.



- 1 Punched hole
- 2 Upper thread over the presser foot

- 6 Pulling the upper thread gently, turn the handwheel toward you (counterclockwise) until the mark on the handwheel aligns with the center top of machine.



→ A loop of the bobbin thread comes up through the hole in the fabric.

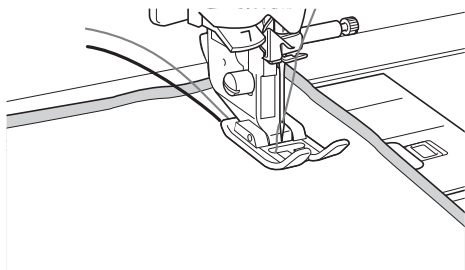
- 7 Raise the presser foot lever, and then use tweezers to pull up the bobbin thread and bring the end of the thread to the top of the fabric.



Note

- Pull the thread while holding down the fabric so it does not move out of place.

- 8** Align the upper thread and bobbin thread, and then pass them under the presser foot toward the rear of the machine.



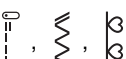
- 9** Turn on the machine.

- 10** Select a stitch.



Memo

- For best results, select a longer stitch length and a wider stitch width. Depending on the selected stitch, it may not be possible to change the stitch length and stitch width settings. For details on adjusting the stitch length and stitch width, refer to the machine's Operation Manual.
- Depending on the fabric, bunched stitches may result. We recommend selecting a simple stitch and sewing trial stitches to check the sewing results.

Examples of simple stitches: 

- 11** Adjust the upper thread tension.

For details on adjusting the upper thread tension, refer to the machine's Operation Manual.



Memo

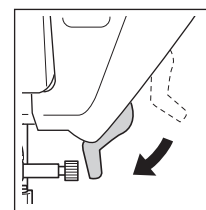
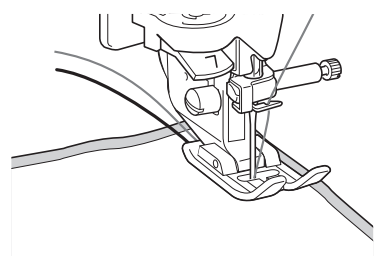
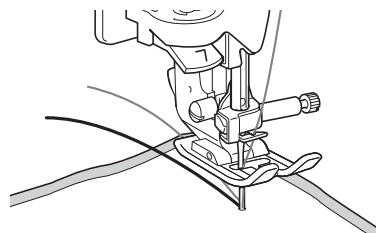
We recommend an upper thread tension that is higher than the standard setting.

- 12** If your machine is equipped with the automatic thread cutting function and automatic reinforcement/reverse stitching function, make sure the automatic thread cutting and automatic reinforcement/reverse stitching have been turned off.

CAUTION

- Before sewing, make sure the automatic thread cutting has been turned off. If sewing is started with automatic thread cutting turned on, the thread may become tangled or the machine may be damaged.

- 13** While gently holding threads at the rear of the machine, turn the handwheel to feed the needle into the punched hole again, and then lower the presser foot lever.



- 14** Select a low speed, gently hold the threads behind the presser foot and start sewing. Threads can be released after several stitches have been made.



Note

- Before sewing, check that there is enough thread in the bobbin.

- 15** When you have reached the end of the stitching area, stop the machine.

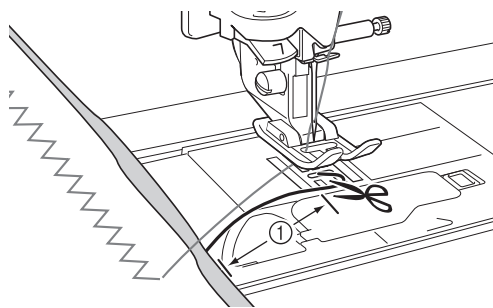


Note

- Do not sew reinforcement/reverse stitches at the end of the stitching, otherwise the threads may become tangled or the needle may break. In addition, it will be difficult to pull the bobbin thread up to the wrong side of the fabric.

- 16** Raise the needle and presser foot.

- 17** Leaving about 10 cm (approx. 4 inches) of thread at the ends, use scissors to cut the threads.



① 10 cm (approx. 4 inches)

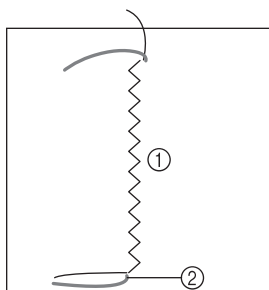


Note

- Do not sew reinforcement/reverse stitches or use a “Thread Cutter” button (if so equipped) at the end of the stitching; otherwise it will be difficult to pull the bobbin thread up to the wrong side of the fabric. In addition the threads may become tangled or the needle may break possibly causing machine damage.

Finishing the Thread Ends

- 1** At the end of the stitching, pull the end of the bobbin thread up to the wrong side of the fabric.



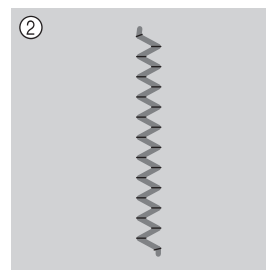
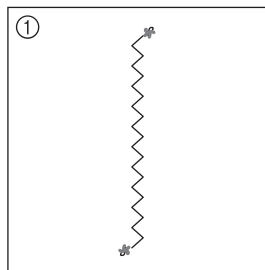
① Wrong side of fabric
② Bobbin thread



Note

- If it is difficult to pull up the bobbin thread, use a ribbon embroidery needle to pull the thread up to the wrong side of the fabric. Otherwise, use an awl to pull up the bobbin thread.

- 2** From the wrong side of the fabric, tie the bobbin thread and the upper thread together by hand, and then cut off excess threads with scissors.



① Wrong side of fabric
② Surface of fabric



Note

- To ensure threads do not come undone after being tied place a drop of fabric glue on knots.

- 3** If the desired results could not be achieved, adjust the tension of the bobbin thread and of the upper thread, and then try sewing the stitching again.

For more details, refer to “Adjusting the Thread Tension” on page 36.

Bobbin Work Free-Motion Sewing



Note

- For bobbin work free motion sewing use the instructions for “Creating Bobbin Work” beginning on page 33.
- Use the quilting foot provided with your machine. If you do not have a quilting foot, contact your nearest authorized dealer to purchase. For details on using the quilting foot, refer to the Operation Manual provided with your machine or with the presser foot.

If so desired, use a template or draw your design on the stabilizer to allow for ease of stitching. Remember, your stitches with your decorative thread will be on the underneath side of your fabric and the stabilizer will be on the top of the wrong side of your fabric.

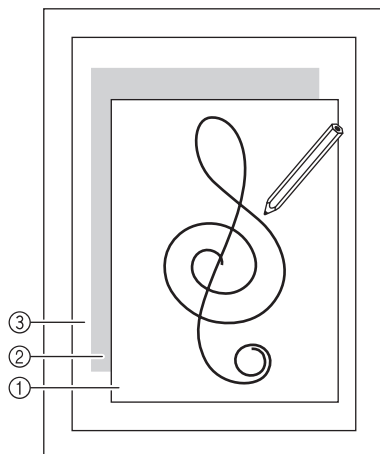
- 1** Print the desired template.



Note

- Print the template in its original dimensions. If an enlarged template is used, the bobbin thread may run out during sewing.

- 2 Affix the stabilizer to the wrong side of the fabric.
- 3 Place commercially available transfer paper on the stabilizer, then the paper printed with the template on top, and then trace the design with a pencil.



- 1 Template
- 2 Transfer paper
- 3 Stabilizer on wrong side of fabric



Note

- Some templates have the arrows to show you the sewing direction. Trace the arrows with design.

- 4 Once the design is transferred to the stabilizer, position the fabric under the free-motion presser foot on the machine, and then use free-motion sewing to sew the design.

Adjusting the Thread Tension

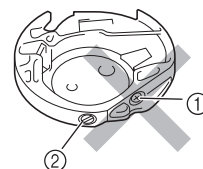
After sewing trial stitches and checking the sewing results, adjust the thread tensions if necessary. After adjusting the tensions, be sure to sew trial stitches again in order to check the sewing results.

■ Adjusting the Upper Thread Tension

We recommend an upper thread tension that is higher than the standard setting. Refer to the machine's Operation Manual for detailed instruction.

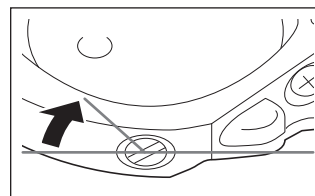
■ Adjusting the Tension of the Bobbin Thread

If the desired stitching cannot be achieved after adjusting the upper thread tension, adjust the tension of the bobbin thread. The tension of the bobbin thread can be adjusted by turning the slotted-head (–) screw on the bobbin case (gray) for bobbin work.

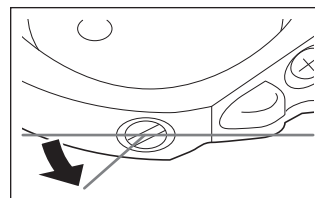


- 1 Do not turn the phillips screw (+).
- 2 Adjust with the small screwdriver.

To increase the tension of the bobbin thread, turn the slotted-head (–) screw 30° to 45° clockwise.

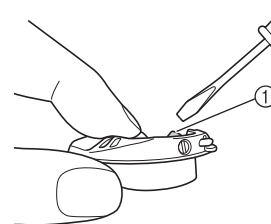


To decrease the tension of the bobbin thread, turn the slotted-head (–) screw 30° to 45° counterclockwise.



Note

- Turning the screw on the bobbin case (gray) may push up the spring plate, as shown below. If this occurs, gently press down the spring plate with a screwdriver so it is lower than the top surface of the bobbin case (gray), and then insert the bobbin case into the machine.



- 1 Spring plate

⚠ CAUTION

- DO NOT adjust the position of the phillips (+) screw on the bobbin case (gray) as this may result in damage to the bobbin case, rendering it useless.
- If the slotted screw (-) is difficult to turn, do not use force. Turning the screw too much or providing force in either (rotational) direction may cause damage to the bobbin case. Should damage occur, the bobbin case may not maintain proper tension.



Note

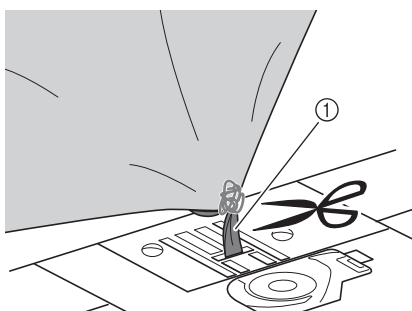
- If the bobbin thread tension is tight, the thread cannot be passed through the tension spring when the bobbin is installed in the bobbin case. (Refer to “When Tension is Not Applied to the Bobbin Thread” on page 31.)

Troubleshooting

Several solutions for minor problems are described below. If the problem persists, contact your nearest authorized dealer.

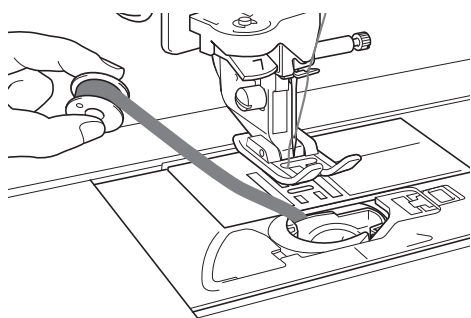
■ The Thread was Accidentally Cut Automatically and the Bobbin Thread is Caught inside the Machine (Only for Machines Equipped with the Automatic Thread Cutting Function)

- 1 Cut the thread near the fabric above the needle plate, and then remove the fabric.



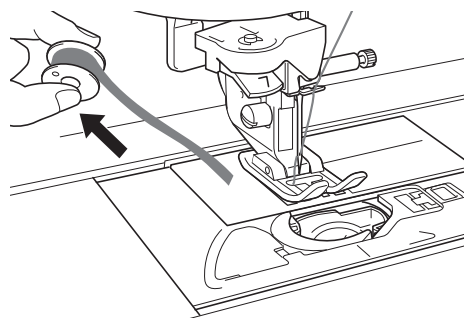
① Thread

- 2 Remove the bobbin, and then hold it out toward the left side of the machine.



- 3 Lower the presser foot.

- 4 Press the “Thread Cutter” button again, and then pull the thread out to the left while the thread cutter is operating.



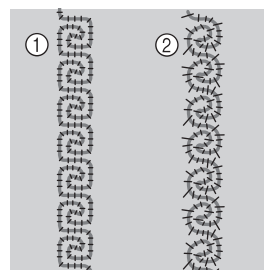
⚠ CAUTION

- Do not pull on the thread with excessive force, otherwise the machine may be damaged.

■ The Pattern is Misaligned

Refer to “Adjusting the Thread Tension” and increase the upper thread tension. If the pattern is still misaligned, reduce the tension of the bobbin thread.

Example: Decorative Stitch



- ① Correct tension
- ② The upper thread tension is too loose, or the bobbin thread tension is too tight.

■ The Bobbin Thread Catches on the Tension Spring of the Bobbin Case

Sew with no tension applied to the bobbin thread. (Refer to “When Tension is Not Applied to the Bobbin Thread” on page 31.)

