



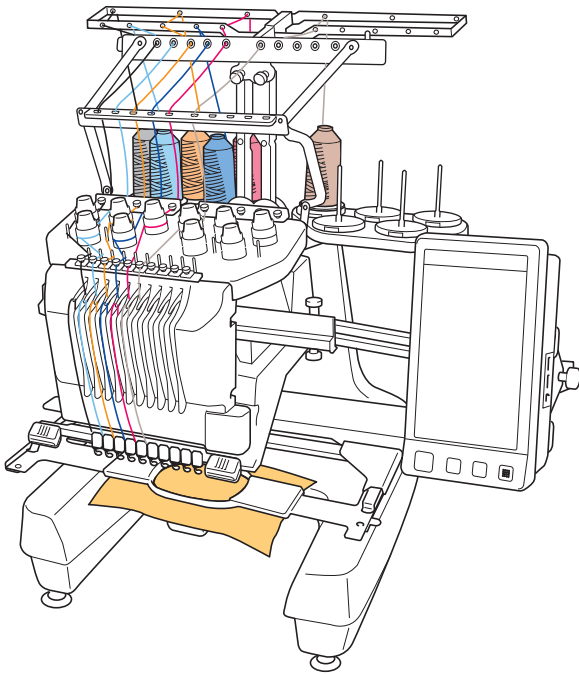
Please select

**Upgrade KIT CW
Operation Manual**

**PE-DESIGN NEXT + CW
Instruction Manual**

Operation Manual

Upgrade KIT CW

















Video Tutorials Included on DVD

With Operation Manual, view the instructional movies providing supplementary information about cutwork creation.



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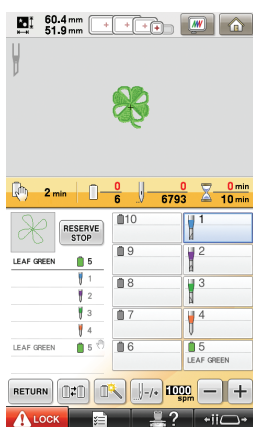
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BEFORE YOU START

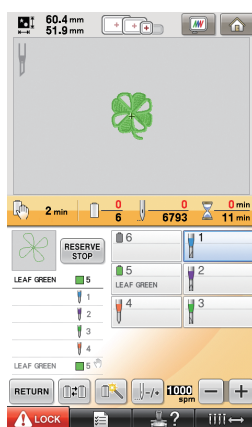
Thank you for choosing our product.

It is important to perform the upgrade according to the procedure outlined in the Installation Guide for upgrade. The machine can then be used as outlined in this upgrade Operation Manual. To obtain the best performance from the machine and to ensure safe and correct operation, please read this Operation Manual carefully before you start.

- The cutwork functions can be used after the upgrade has been installed and certified. Use the machine after checking that KIT CW has been certified.
- For the procedure on installing and certifying KIT CW, refer to the Installation Guide for upgrade.
- The descriptions in this Operation Manual show the screens for the 10-needle machine with Upgrade Kit 1 certified. The settings and operations may differ slightly depending on your machine model or version.



10-needle machine



6-needle machine

NEW FEATURES

- **Fabric can be cut if cutwork needles are installed in specific needle bars of the machine. This allows embroidering and cutting to be done with the same machine. (page 4)**
- **Embroidering and cutting can be done by importing embroidery data (PES format) that includes a cutwork pattern. (page 4)**
 - Enjoy creating cutwork designs immediately after you upgrade your machine, using the enclosed CD-ROM1 (for machines) that contains 30 cutwork patterns. (page 10)
 - Cutwork can also be created by designing an original pattern using PE-DESIGN NEXT + CW, then importing it into your machine.
- **From the machine, an embroidery pattern can be edited so that it will be cut out or sewn with satin stitching. (page 18)**
 - When creating an appliqué from an embroidery pattern, the appliqué piece can be cut out. (page 20)
 - The embroidery pattern can be cut out along its outer boundary. (page 23)
 - The embroidery pattern can be sewn with satin stitching along its outer boundary, then cut out. (page 24)

Video Tutorials

Video tutorials are included on the supplied DVD. Instructional movies are available for the topics listed with the following DVD icons in this Installation Guide.



Preparation

- Videos of the preparation procedure can be viewed by clicking “Preparation” in the chapter index of the supplied DVD.



Basic Cutwork Embroidery

- An instructional movie for basic cutwork embroidery can be viewed by clicking “Basic Cutwork Embroidery” in the chapter index of the supplied DVD.



Advanced Cutwork Embroidery

- An instructional movie for advanced cutwork embroidery can be viewed by clicking “Advanced Cutwork Embroidery” in the chapter index of the supplied DVD.



Cutwork Designs Creation on PC

- An instructional movie for creating cutwork designs on your computer can be viewed by clicking “Cutwork Designs Creation on PC” in the chapter index of the supplied DVD.
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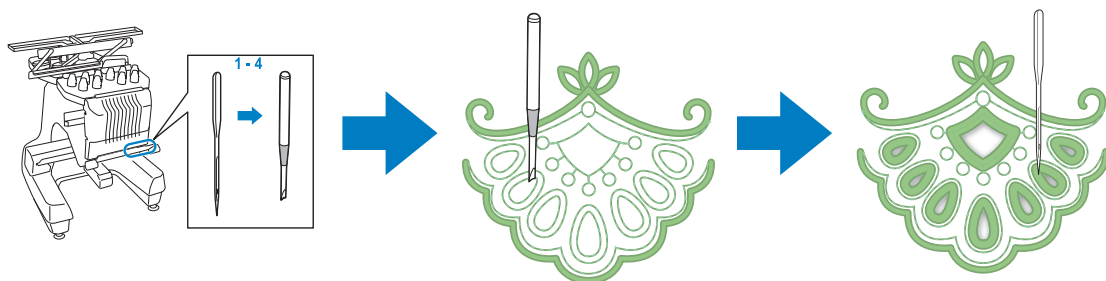
ABOUT CUTWORK

What is Cutwork?

Cutwork is created when an embroidery design has an area that has been cut away and then reinforced around those sections with embroidery, there may also be stitching added within the open spaces to create gorgeous decorative patterns.

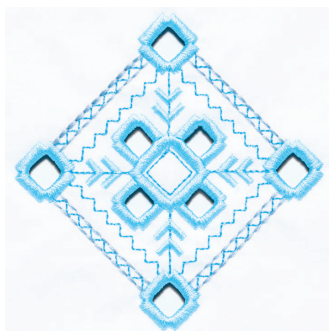


After installing KIT CW to upgrade the machine, replace the embroidery needles in needle bars 1 through 4 with the corresponding cutwork needles which have been created with different angles so the machine can cut the fabric and embroider.



Import a cutwork pattern from the enclosed CD-ROM1 (for machines) to the machine in order to create cutwork.

For details on the patterns included with KIT CW, refer to the separate Pattern List.



In addition, the cutwork pattern can be created using the machine to cut or sew satin stitching around the desired pattern. (Refer to "USING THE MACHINE TO POSITION EMBROIDERY PATTERNS FOR CREATING CUTWORK" on page 18)

An original cutwork pattern designed in PE-DESIGN NEXT + CW can be imported into the machine to embroider cutwork. For details on installing PE-DESIGN NEXT + CW, refer to the Installation Guide.



Memo

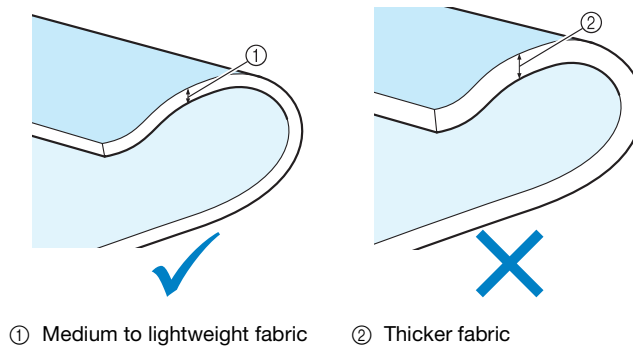
- "Cutwork pattern" is a generic term used to refer to all the embroidery designs created with the cutwork needles, including cutout patterns, in this manual.

Before Creating Cutwork

Information that you need to understand before creating cutwork as well as the preparations that must be performed are described below.

Fabric used with cutwork

The base fabric used with cutwork should be no thicker than a soft denim (equivalent to medium to light weight fabric). Using thicker fabrics may result in damage to the cutwork needles or machine, it may also effect the finish of the design or cause fraying.

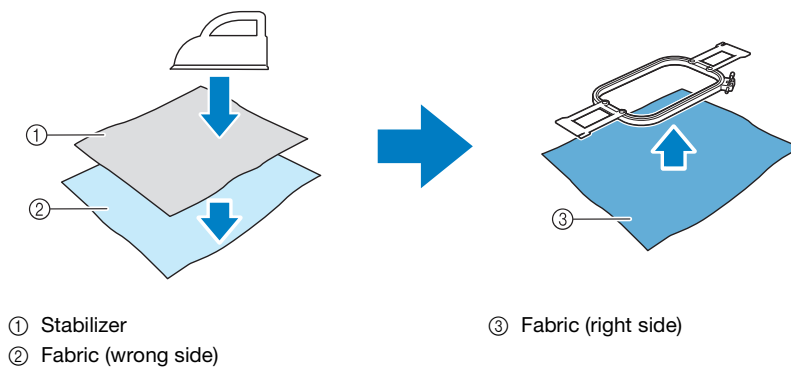


Embroidery frames used with cutwork

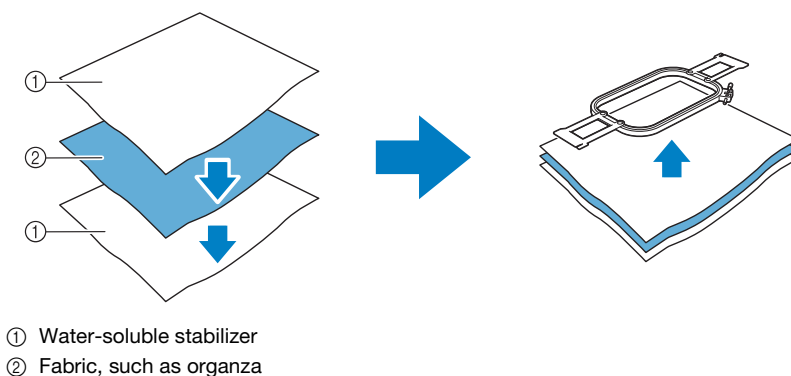
When creating cutwork, the cap frame and cylinder frame cannot be used.

Stabilizer

In order to prevent the pattern from losing its shape during embroidering or cutting, use an iron to affix stabilizer material to the base fabric.



When using fabric that cannot be ironed, such as organza, place water-soluble stabilizer above and below the fabric, and secure the sheets with an embroidery frame.



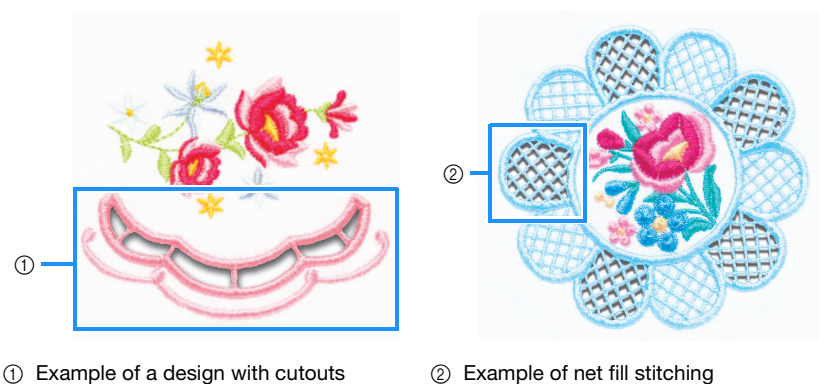
For details on affixing stabilizer, refer to “Attaching Stabilizer” on page 14.

Precautions on using water-soluble stabilizer

- Do not use with fabric that cannot be washed with water.
- Avoid storing in an extremely humid or wet location.
- Store in a dry location not exposed to humidity.

Patterns requiring water-soluble stabilizer

Use a water-soluble stabilizer when stitching the cut edges of a design or when embroidering using the net fill stitch. (Refer to “Attaching Water-Soluble Stabilizer” on page 15.) A sheet of non-woven water-soluble stabilizer is supplied. Optional film-type water-soluble stabilizers are available for use. For details on the optional water-soluble stabilizer, refer to Installation Guide.



Various patterns on the enclosed CD-ROM1 (for machines) require water-soluble stabilizer. For details on patterns included on the CD-ROM, refer to the separate Pattern List.

By using PE-DESIGN NEXT + CW, original designs with cutouts and designs using the net fill stitch can be created. For details on installing PE-DESIGN NEXT + CW, refer to the Installation Guide.

Trial embroidery

Be sure to sew trial embroidery using same fabric and threads as project in order to check the embroidering and cutting results.

CUTWORK MODE

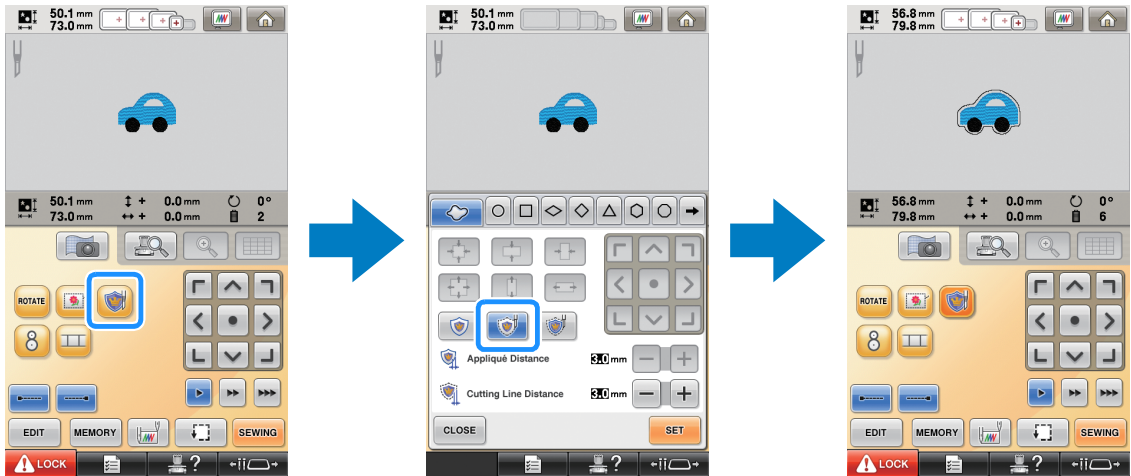
The KIT CW installed on your machine activates the cutwork program for use with the specialized needles.

In order to create cutwork patterns, the machine must be switched to Cutwork mode.

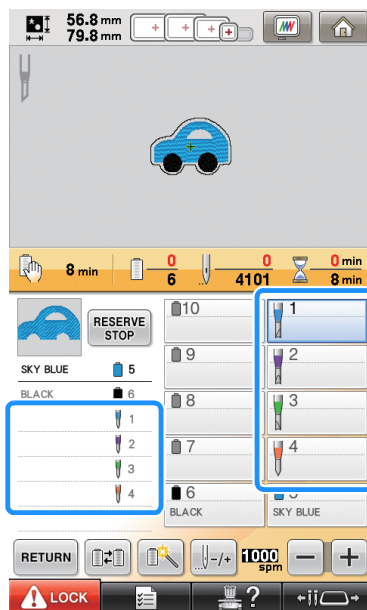
For details on switching the machine to Cutwork mode, refer to “Switching to Cutwork Mode” on page 11.

■ Cutwork mode functions

A cutwork pattern can be designed with your desired embroidery pattern using a cut out or outlined with satin stitching.



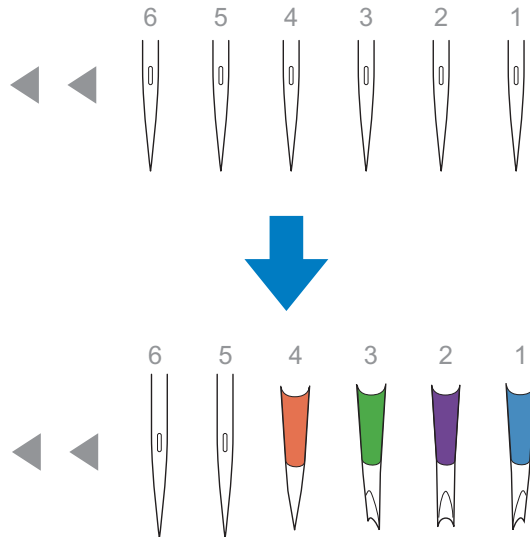
The sections of the design where the cutwork needles will be used are indicated in the embroidering screen as shown below.



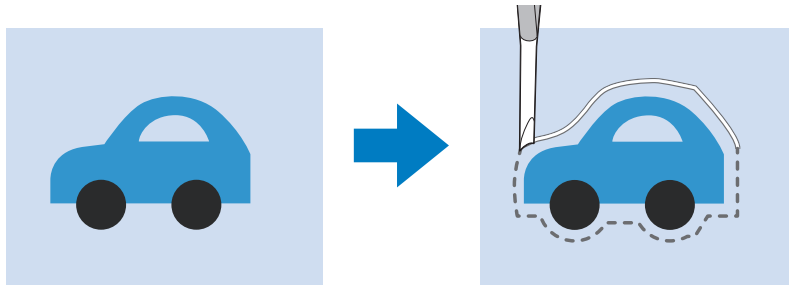
■ When using Cutwork mode

The displays for embroidery needles 1 through 4 change to cutwork needles.

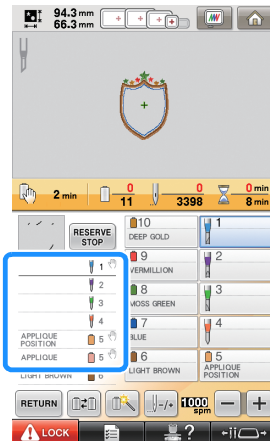
Cutting will be done with needles 1 through 4, and embroidering with the remaining needles.



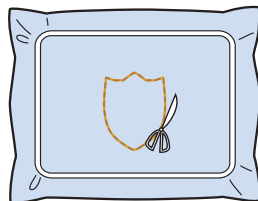
When using the cutwork needles, the fabric will be cut.



The cutting line for the appliqué piece (APPLIQUE MATERIAL) will also be cut using the cutwork needles.



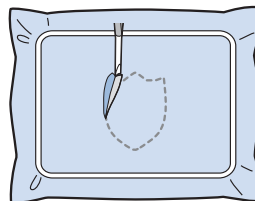
Cutwork mode OFF



APPLIQUE MATERIAL	1	Hand icon
APPLIQUE POSITION	1	Hand icon
APPLIQUE	1	Hand icon






Cutwork mode ON



	1	Hand icon
	2	Hand icon
	3	Hand icon
	4	Hand icon
APPLIQUE POSITION	5	Hand icon
APPLIQUE	5	Hand icon

“APPLIQUE MATERIAL”, “APPLIQUE POSITION” and “APPLIQUE” are assigned to one needle bar number and listed on the screen.

Depending on the thread color display setting, the display may appear as  (APPLIQUE MATERIAL),  (APPLIQUE POSITION) or  (APPLIQUE).



Note

- Depending on the pattern, the cutting line may not be cut. In that case, the cutting line will be sewn.
- For details on patterns that cannot be used for cutwork, refer to “ERROR MESSAGES” on page 32.

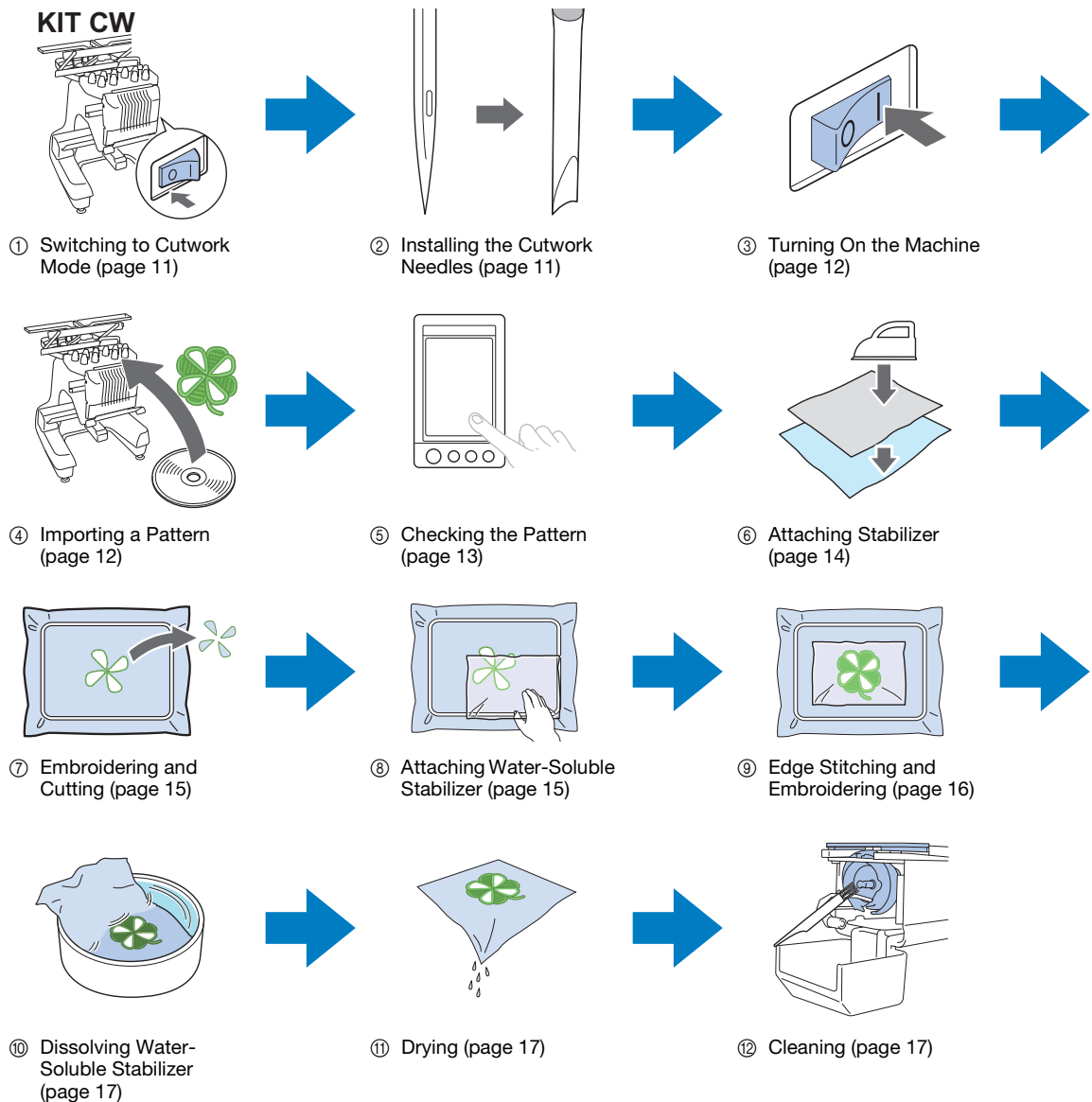
(For use only with Upgrade Kit 1 sold separately)

- When the pattern size is changed by using the stitch recalcuator function, the cutting line will be sewn instead of being cut.

CREATING CUTWORK




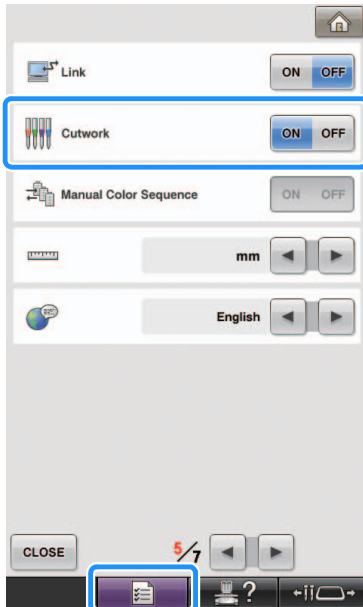
One example procedure for creating cutwork using the machine is shown below. We will follow this procedure to create cutwork using the cutwork pattern for a clover on the enclosed CD-ROM1 (for machines). Follow this procedure as practice.



Switching to Cutwork Mode → 2

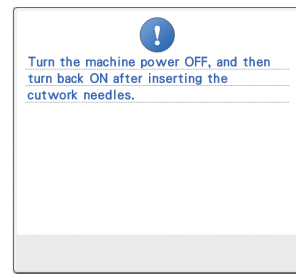
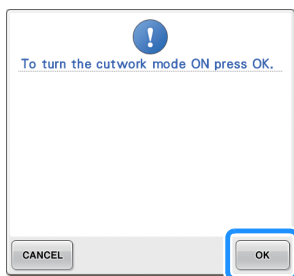
The machine needs to be turned off after the “Cutwork” setting is set to on.

- 1 Touch  to display the settings screen, and then touch ON beside “Cutwork”.

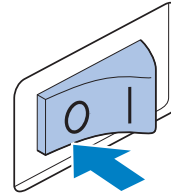


→ A message appears.

- 2 Touch OK.



- 3 Turn off the machine.



Finishing Cutwork mode

Be sure to turn Cutwork mode off, before you perform embroidery operation with all the needles available for your machine.

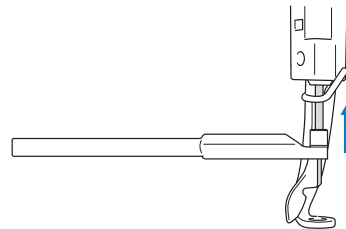
To turn off Cutwork mode, touch OFF beside “Cutwork” in the settings screen (described in step 1). As directed in the message that appears, turn off the machine, replace the cutwork needles with the embroidery needles, and then turn the machine on again.

Installing the Cutwork Needles → 1

CAUTION

- Be sure to turn off the embroidery machine before replacing the needles, otherwise injuries may result if the machine starts sewing.

- 1 Install the cutwork needles.

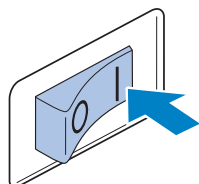


Memo

- For details on installing the cutwork needles, refer to “Replacing the Cutwork Needles” in the Installation Guide.

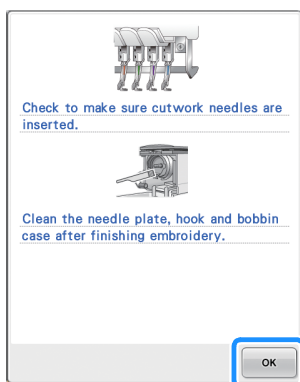
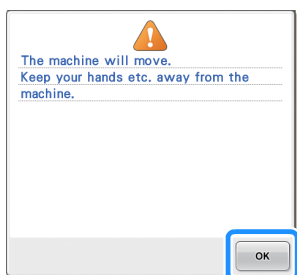
Turning On the Machine →

- 1 Turn the machine on again.



→ The following messages appear.

- 2 Check the information in the message, and then touch .



→ The machine enters Cutwork mode.



Note

- Check that the cutwork needles are installed. Also, periodically clean the needle plate, hook and bobbin case after using the machine.
- This machine is equipped with a memory feature so that, if the machine is turned off while it is being operated, it will resume the stopped operation when it is turned on again. However, if the Cutwork mode is turned off during an operation, this feature will be disabled. For details on this memory feature, refer to “Resume Embroidering After Turning Off the Machine” in chapter 3 of your machine’s Operation Manual.

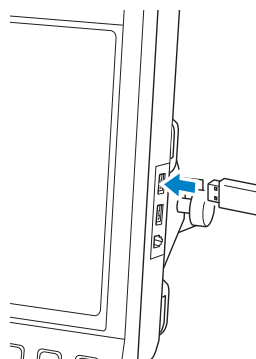




Memo

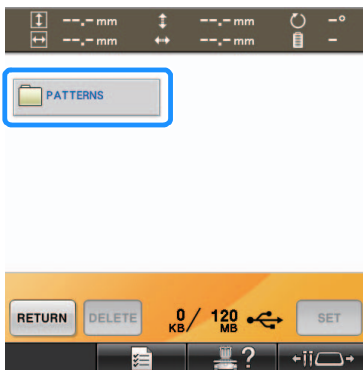
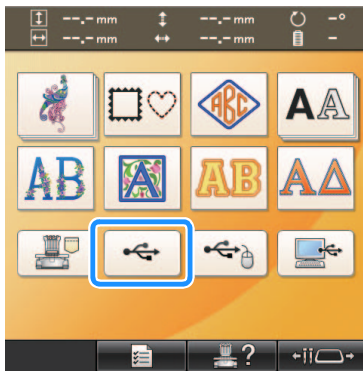
- Once the Cutwork mode has been turned on, the machine starts in Cutwork mode each time it is turned on until Cutwork mode is turned off.

Importing a Pattern →

- 1 Insert the CD-ROM1 (for machines) into the computer’s CD-ROM drive. Copy the “patterns” folder to the USB media.
- 2 Insert the USB media into the primary (top) USB port on the machine.



- 3 Touch , select the pattern, and then touch  to import the pattern.



→ The pattern editing screen appears.



Note

- To import a cutwork pattern from the enclosed CD-ROM to the machine, use USB media, or directly connect a computer to the machine and transfer the data.



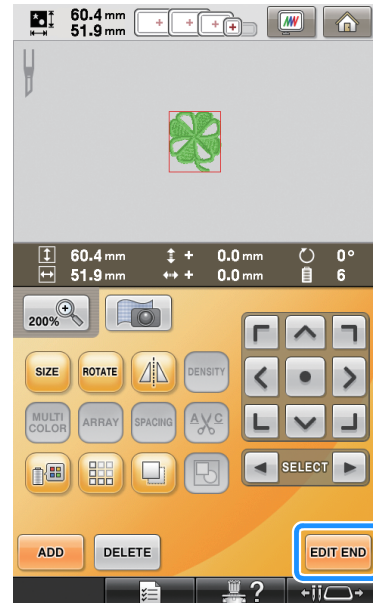
Memo

- For details on importing patterns, refer to "Selecting an Embroidery Pattern" in chapter 5 of your machine's Operation Manual.

Checking the Pattern

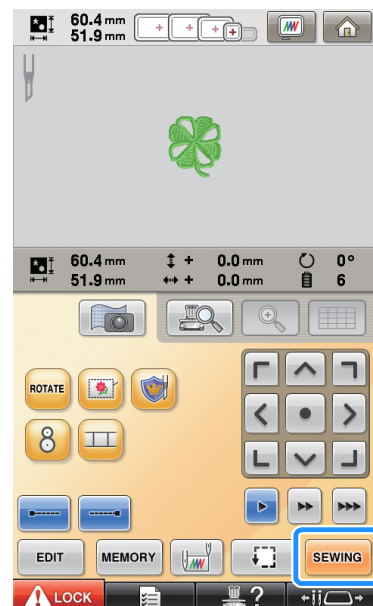
- 1 Touch .

The imported cutwork pattern can be edited, repositioned, added or removed. If the pattern is not edited, continue to the next screen.



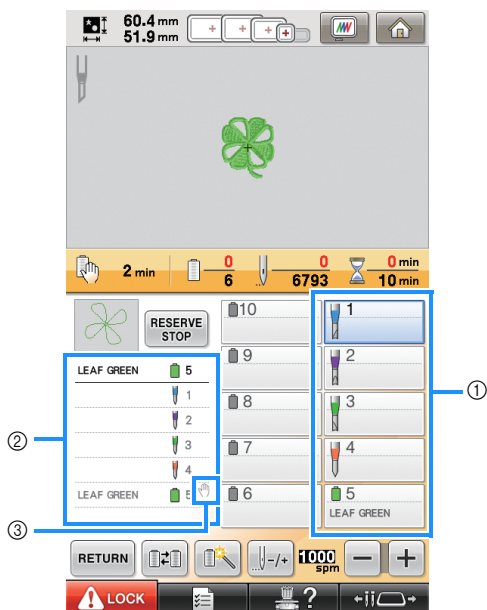
→ The embroidering settings screen appears.

- 2 Touch .

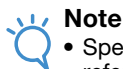


→ The embroidering screen appears.

- 3 With the thread color sequence display and sewing order, check the thread colors and sewing order.



- ① Needle bar key/Thread color set up display
- ② Thread color sequence display
- ③ Indicates that the machine will stop before the embroidering (or cutting) function is preformed.



Note

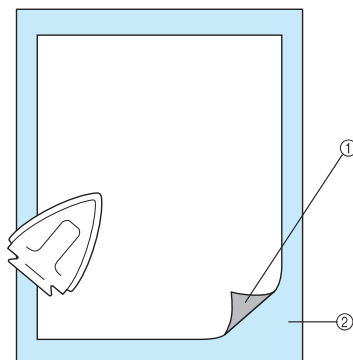
- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.
- When the Cutwork mode has been turned on, the cutwork needles appear for needles 1 through 4, and their settings cannot be changed.

→ The machine is now prepared for cutwork.

Attaching Stabilizer → 2

In order to prevent the pattern from losing its shape during embroidering or cutting, use an iron to affix stabilizer material to the fabric being used.

- 1 Using an iron, affix the stabilizer material to the back of the fabric.



- ① Adhesive side of iron-on stabilizer (backing)
- ② Fabric (wrong side)



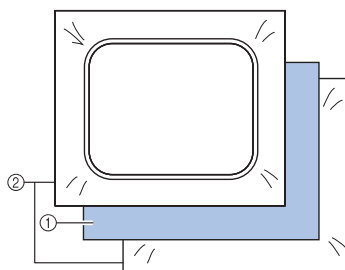
Note

- Follow the package instructions for the stabilizer being used.



Memo

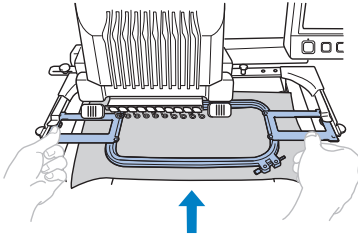
- When using fabric that cannot be ironed, such as organza, place water-soluble stabilizer above and below the fabric, and secure the sheets with an embroidery frame. Water-soluble stabilizers dissolve when washed, allowing you to create beautiful embroidery that is not stiff.



- ① Fabric
- ② Water-soluble stabilizers

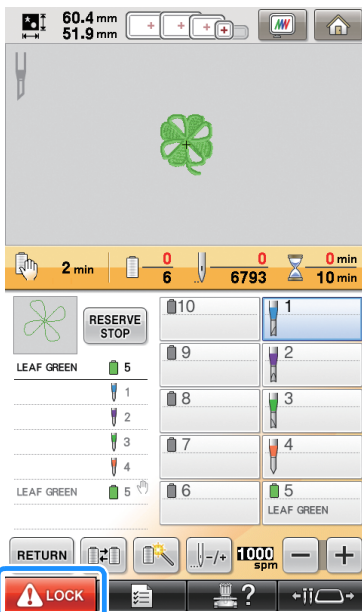
- For details on using stabilizer, refer to “Stabilizers (backing)” in chapter 7 of your machine’s Operation Manual.

- 2 Securely hoop the fabric with the stabilizer attached, and then attach the embroidery frame to the machine.



Embroidering and Cutting → 2

- 1 Touch **LOCK**, and then press the start/stop button to start embroidering.



→ After the outlines of the cutout areas are sewn, the areas will be cut with the cutwork needles. After cutting with the cutwork needles, the machine will stop.

Attaching Water-Soluble Stabilizer → 2

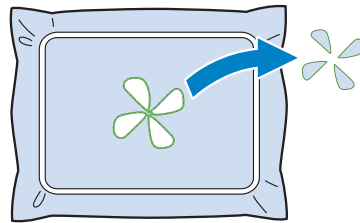
After cutting, place the enclosed water-soluble stabilizer or similar product on the fabric, if necessary, and then embroider.

Note

- For details on the patterns requiring water-soluble stabilizer, refer to “Patterns requiring water-soluble stabilizer” on page 6.

- 1 Remove the embroidery frame.
- 2 Remove the fabric cut outs created using the cutwork needles.



Depending on the type of fabric that is used, some areas may not be fully cut. Use tweezers and scissors to carefully remove the cutout pieces without stretching the fabric.






Note

- When removing the cutout pieces, do not remove the fabric from the embroidery frame.

Memo

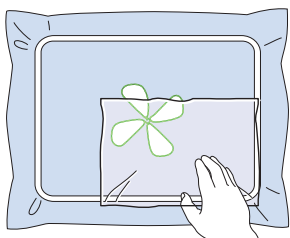
- If the cut edges will be sewn, for example, with satin stitching, use scissors to remove excess threads which will create a cleaner finish.
- On the 10-needle machine, touch , and then press  to move the embroidery frame toward you so that the fabric can be cleaned up without removing the embroidery frame.

- 3 Reattach the embroidery frame, or if you have moved the frame toward you using  and  on the 10-needle machine, touch  to move it back into position.

Note

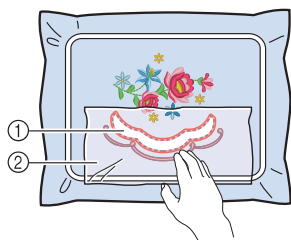
- Make sure not to replace the embroidery frame upside down, otherwise the pattern will become misaligned.

- Place the enclosed water-soluble stabilizer on the cutout areas to reinforce the edges to be sewn with satin stitching.



Note

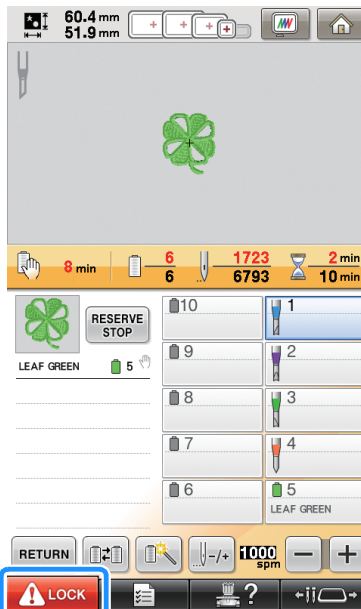
- Use a sheet of water-soluble stabilizer that is slightly larger than the cutout area or net fill stitching area.



- Cutout area
- Water-soluble stabilizers

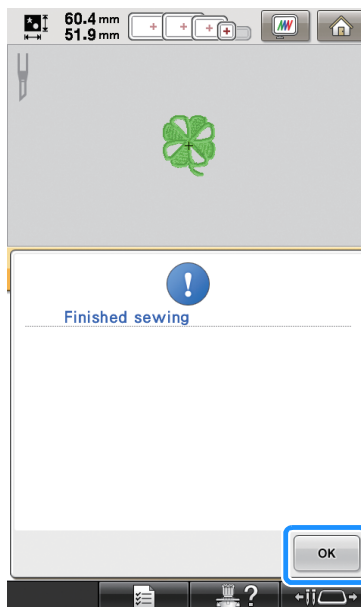
Edge Stitching and Embroidering → 2

- Touch **LOCK**, and then press the start/stop button to restart embroidering.



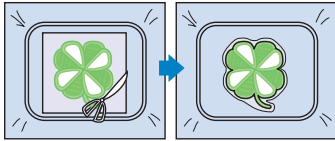
→ When all embroidering is finished, the following screen appears.

- Touch **OK** to return to the embroidering settings screen.

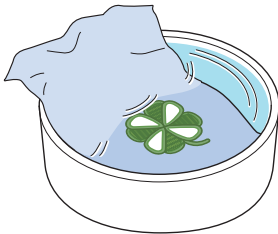


Dissolving Water-Soluble Stabilizer → 2

- 1 Remove the embroidery frame from the machine and the fabric from the frame. Use scissors to cut and remove the excess water-soluble stabilizer along the outline of the embroidery pattern.

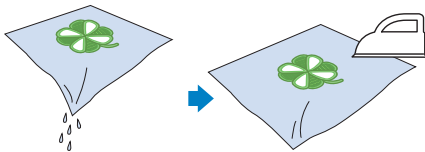


- 2 Soak the fabric in warm water to melt away the remaining water-soluble stabilizer.



Drying

- 1 Dry the fabric. And then iron it, if necessary.



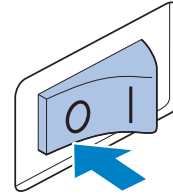
Note

- When ironing, be sure to use the right iron temperature for the type of fabric to protect it from shrinking, scorching or becoming damaged.

Cleaning → 2

When fabric and stabilizers are cut with the cutwork needles, fabric scraps and lint may be produced. Clean the needle plate, hook and bobbin case at least once a day or after each project which ever comes first. For details on cleaning them, refer to "Maintenance" in chapter 7 of your machine's Operation Manual.

- 1 Turn off the embroidery machine.

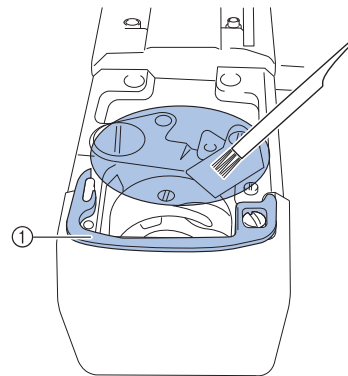


CAUTION

- Unplug the power supply cord before cleaning the machine, otherwise injuries or an electric shock may occur.

- 2 Remove the needle plate and then use the brush to remove any lint and dust.

Carefully clean and dust under and around the needle plate spacer before replacing the needle plate.



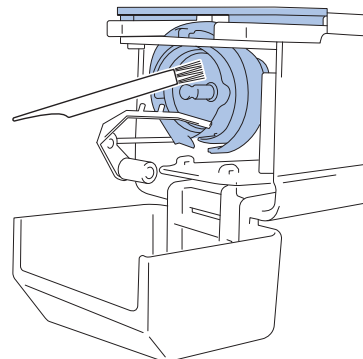
① Needle plate spacer



Note

- Since lint easily collects around the needle plate, it should be cleaned periodically.
- While cleaning, be careful not to lose the spacer.

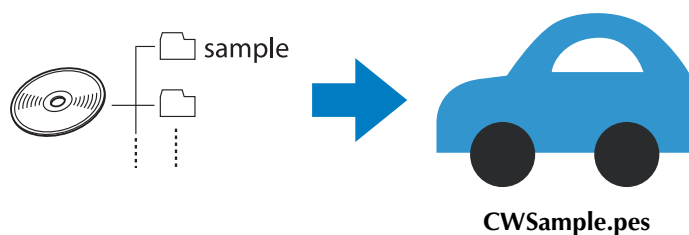
- 3 Open the hook cover, remove the bobbin case, and then use the brush to remove any fabric scraps and lint.



USING THE MACHINE TO POSITION EMBROIDERY PATTERNS FOR CREATING CUTWORK

Sample Pattern

Enjoy creating cutwork patterns on your machine. The procedures for editing a cutwork pattern are described as follow. The sample pattern used in this instructions is contained in the supplied CD-ROM1 (for machines).



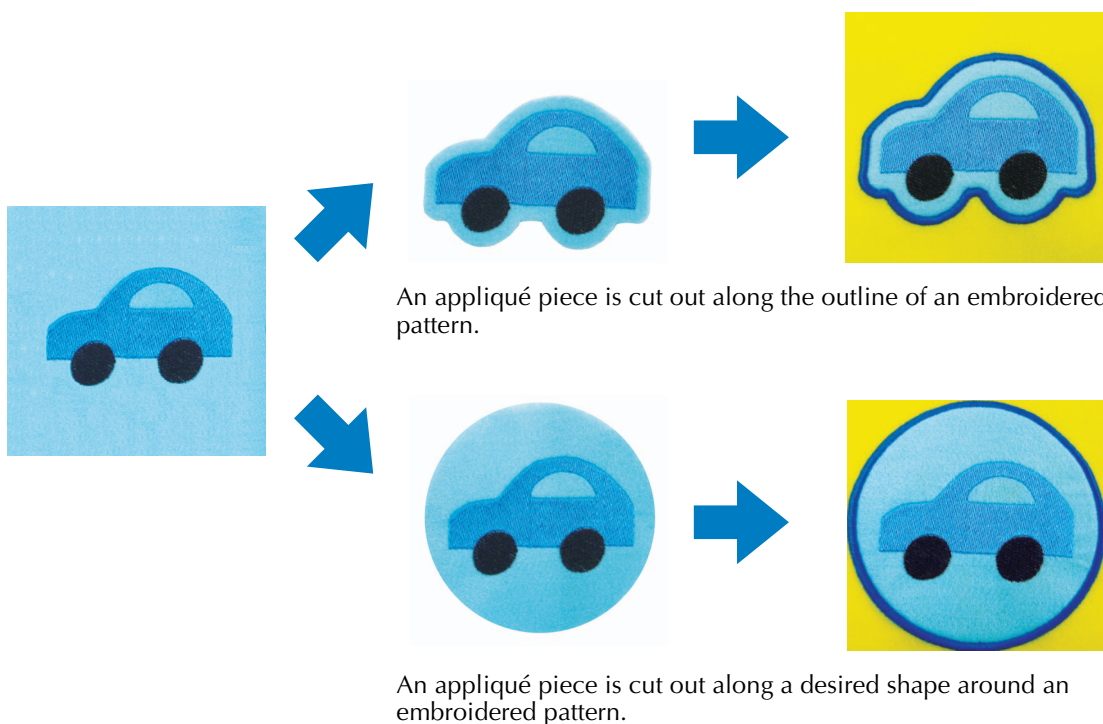
Using Editing Functions on Embroidery Patterns

From the machine, a cutwork pattern can be designed by either cutting out an embroidery pattern or outlining it with satin stitching.

■ Creating an Appliqué from an Embroidery Pattern (page 20)

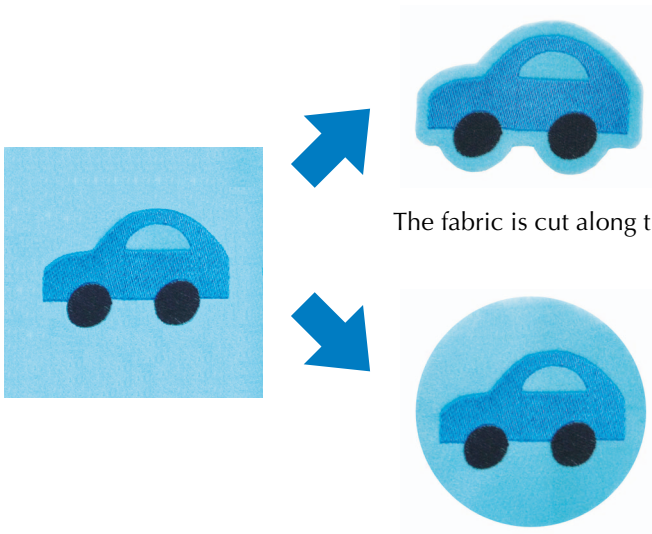
An embroidery pattern can be selected to create an appliqué with a desired shape.

After embroidering and cutting out an appliqué piece, it can be attached to fabric with satin stitching.



■ Cutting Around an Embroidered Pattern (page 23)

After a pattern has been embroidered, it can be cut out following the shape of the pattern or in a desired shape. This is useful for cutting out only the pattern to create an appliqué piece.



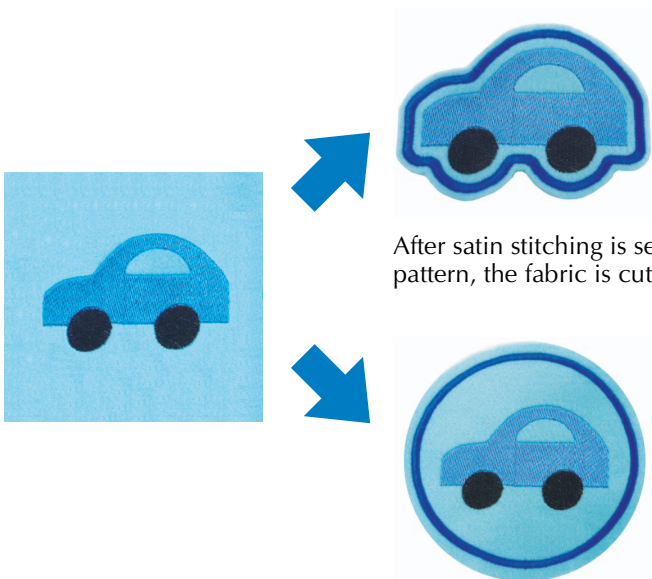
The fabric is cut along the outline of an embroidered pattern.

The fabric is cut in a desired shape around an embroidered pattern.

■ Satin Stitching Around an Embroidery Pattern, then Using the Cutwork Needles to Cut the Design Out (page 24)

After satin stitching is sewn in a desired shape around the embroidered pattern, it can be cut out along that outer boundary.

This is useful for adding an artistic touch to the pattern. In addition, this is best suited for making patches.



After satin stitching is sewn along the outline of an embroidered pattern, the fabric is cut.

After satin stitching is sewn in a desired shape around an embroidered pattern, the fabric is cut.

Creating an Appliqué from an Embroidery Pattern → 3

The procedure for cutting out an embroidered piece along the outline or desired shape to create an appliqué is described below.



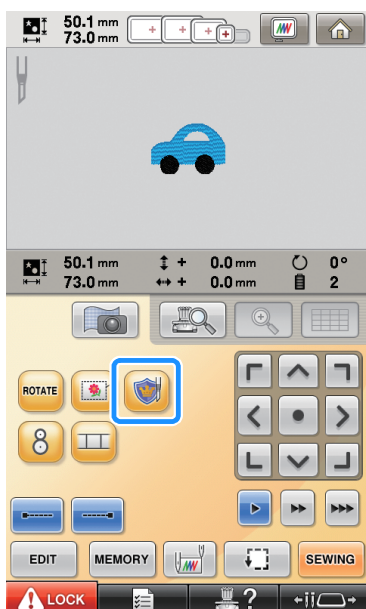
Memo

- For details on making an appliqué, refer to “Appliqué Sewing” in chapter 7 of your machine’s Operation Manual.

■ Creating an appliqué with the outline around a pattern



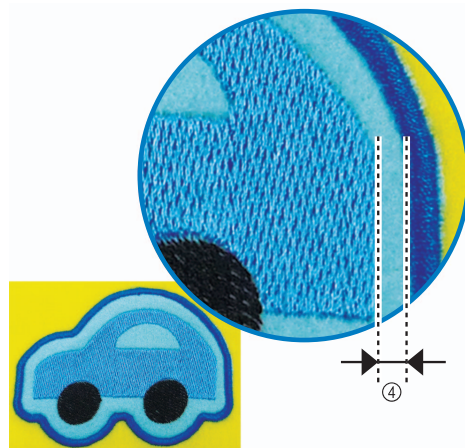
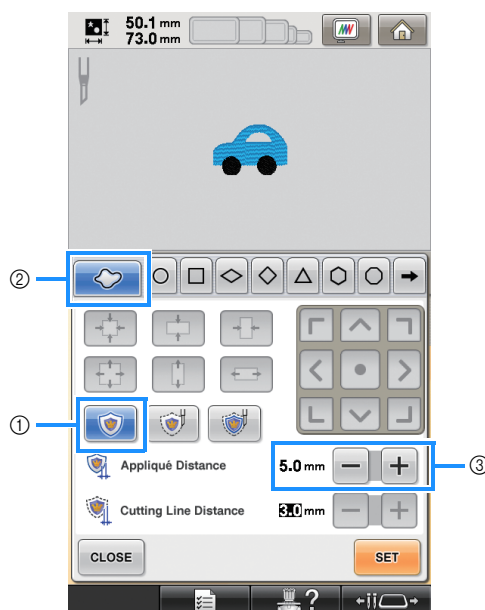
- Set the embroidery machine to Cutwork mode and turn it off. Turn the machine back on after inserting the cutwork needles. (page 11, 12)
- After selecting the pattern, touch in the embroidering settings screen.



→ The pattern settings screen appears.

- Touch , and make sure is highlighted.

With the “Appliqué Distance” keys, specify the distance of the appliqué outline from the embroidery pattern.



- Appliqué key
- Outline tab
- Appliqué Distance keys
- Distance between appliqué outline and pattern edge



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.

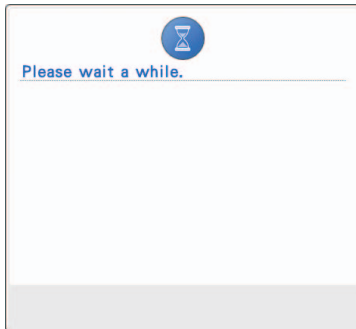


Memo

- “Appliqué Distance” can also be specified on page 2 of the Settings screen.

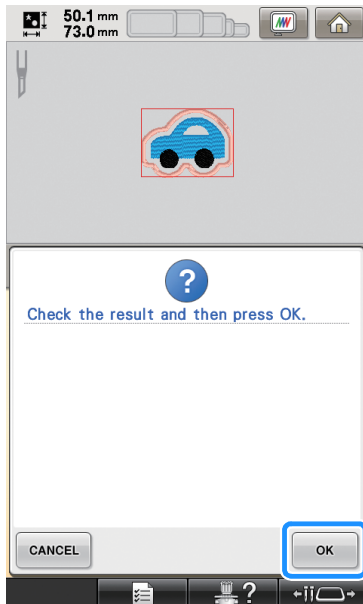
4 Press **SET**.

→ The following messages appear.




5 Check the displayed preview, and then touch **OK** if it is acceptable.

If desired distance is not acceptable touch **CANCEL** and repeat step 5.

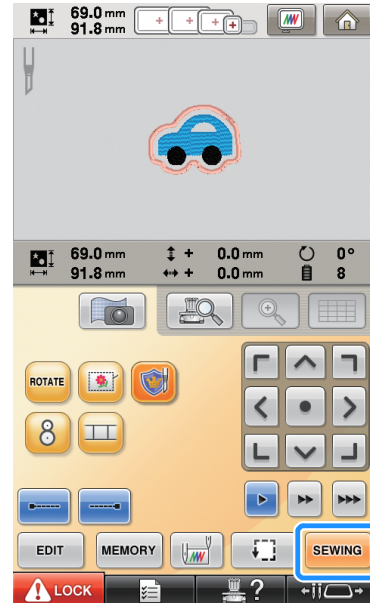


→ The embroidering settings screen appears again.

Memo



- Touching  in the embroidering settings screen after specifying the settings clears all settings and edited data described above.
- An appliqué piece can also be created by using water-soluble stabilizer, instead of fabric, as the appliqué base. For details on making an appliqué piece, refer to “Creating an appliqué piece” in chapter 4 of your machine’s Operation Manual.

6 Press **SEWING**.

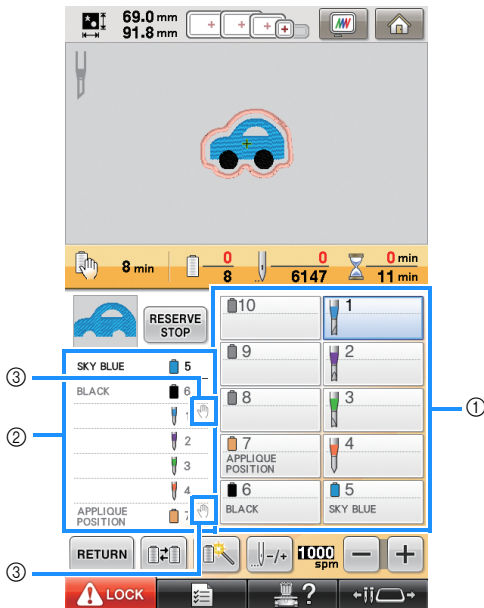


→ The embroidering screen appears.

Note

- If necessary, touch  on the top right side of the screen to display a preview image, and then touch  on the following screen to display an enlarged view of the pattern, in order to check the pattern position.

- 7 With the thread color sequence display and sewing order, check the thread colors and sewing order.



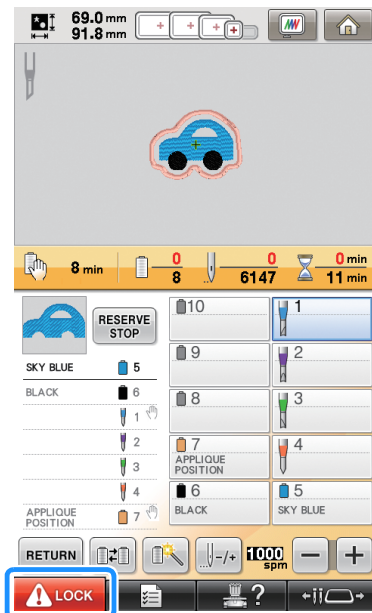
- ① Needle bar key/Thread color set up display
- ② Thread color sequence display
- ③ Indicates that the machine will stop before the embroidering (or cutting) function is preformed.



Note

- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.

- 8 Touch **LOCK**, and then press the start/stop button to start embroidering.



Memo

- An appliqué piece can be created along the outline of an embroidered pattern even when Cutwork mode is turned off. With Cutwork mode turned off, the cutting line “APPLIQUE MATERIAL” is embroidered, instead of it being cut out.
- For details on making an appliqué, refer to “Appliqué Sewing” in chapter 7 of your machine’s Operation Manual.

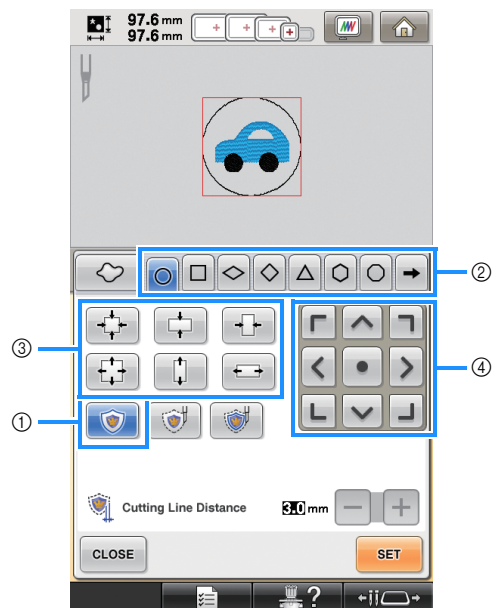
Creating an appliqué with a desired frame shape



- 1 Follow steps ① and ② in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch . Next, touch until the desired frame shape appears, and then select it.

If desired, change the size and position of the frame.



- ① Appliqué key
- ② Frame type keys
- ③ Frame resizing keys
- ④ Frame positioning keys

- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.



Memo



- An appliqué piece can be created along a desired shape around the embroidered pattern even when Cutwork mode is turned off. With Cutwork mode turned off, the cutting line “**APPLIQUE MATERIAL**” is embroidered, instead of it being cut out.

Cutting Around an Embroidered Pattern → 3

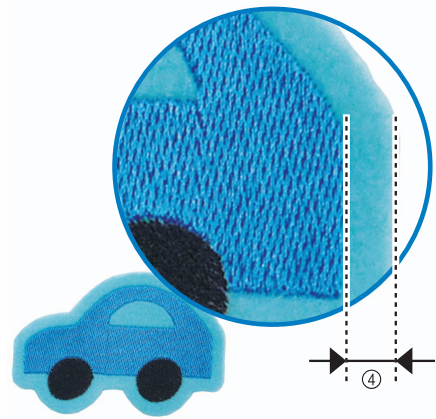
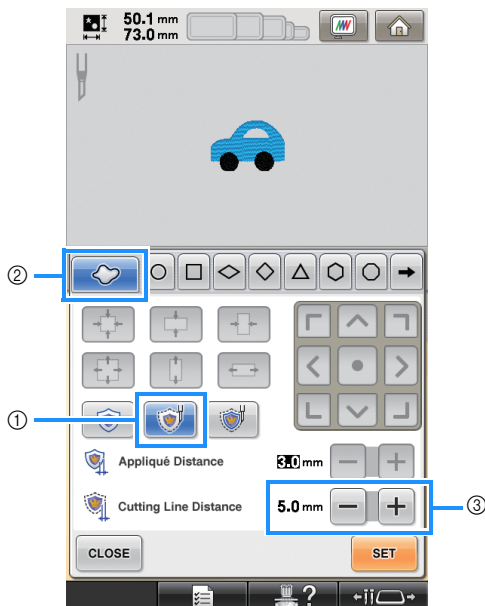
■ Cutting the fabric along the outline of a pattern



- 1 Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch , and make sure  is highlighted.

With the “Cutting Line Distance” keys, specify the distance of the cutting line from the embroidery pattern.



- ① Cut key
- ② Outline tab
- ③ Cutting Line Distance keys
- ④ Distance between cutting line and pattern edge



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.



Memo

- “Cutting Line Distance” can also be specified on page 2 of the Settings screen.

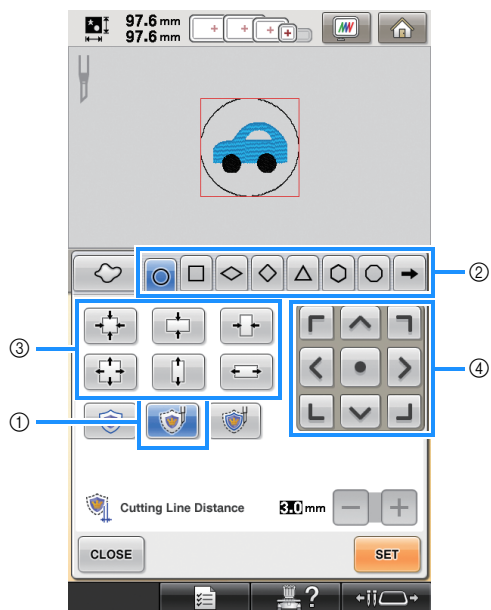
- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

■ Cutting the fabric along the outline of a desired frame shape



- 1 Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch . Next, touch until the desired frame shape appears, and then select it.
If desired, change the size and position of the frame.



- 1 Cut key
- 2 Frame type keys
- 3 Frame resizing keys
- 4 Frame positioning keys

- 3 Continue the procedure starting with step 4 in "Creating an appliqué with the outline around a pattern" on page 20.

Satin Stitching Around an Embroidery Pattern, then Using the Cutwork Needles to Cut the Design Out

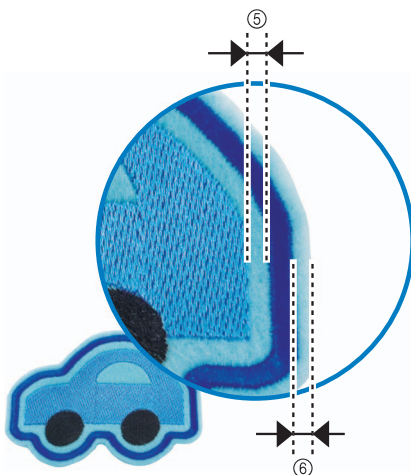
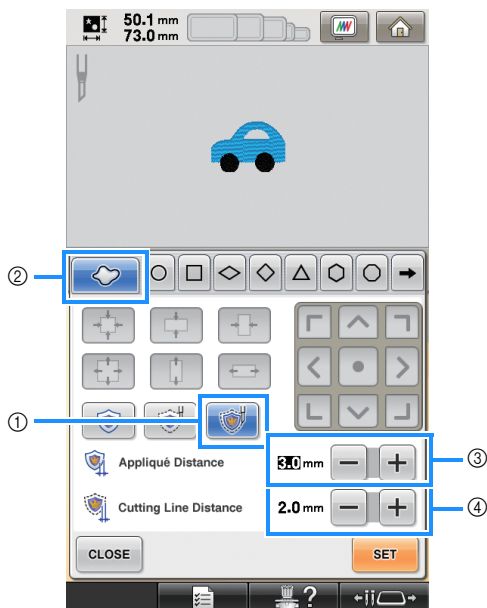
■ Satin stitching along the outline of a pattern, then cutting the fabric



- 1 Follow steps 1 and 2 in "Creating an appliqué with the outline around a pattern" on page 20.

- 2 Touch , and make sure is highlighted.

With the "Appliqué Distance" keys, specify the distance of the satin stitching from the edge of the pattern. With the "Cutting Line Distance" keys, specify the distance of the cutting line from the edge of the satin stitching.



- 1 Satin & Cut key
- 2 Outline tab
- 3 Appliqué Distance keys
- 4 Cutting Line Distance keys
- 5 Distance between satin stitching and pattern edge
- 6 Distance between cutting line and edge of satin stitching (outlining the pattern)



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.



Memo

- “Appliqué Distance” and “Cutting Line Distance” can also be specified on page 2 of the Settings screen.

- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

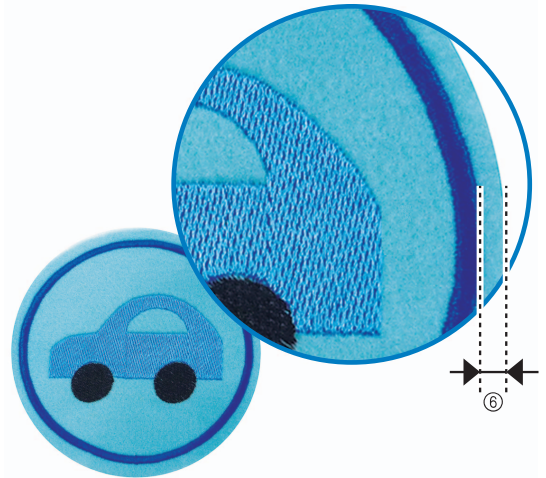
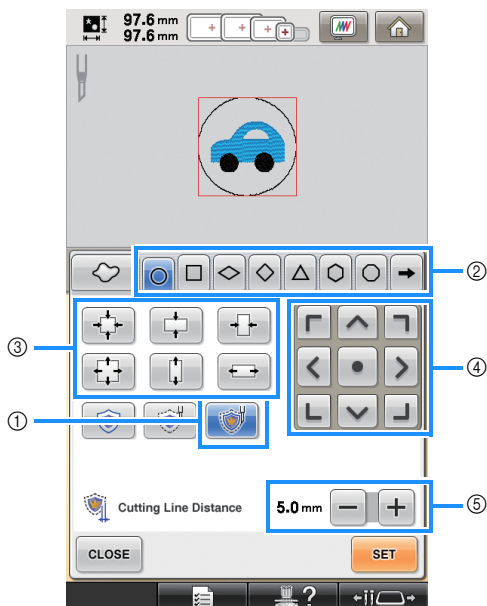
■ **Satin stitching along the outline of a desired frame shape, then cutting the fabric**



- 1 Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch . Next, touch until the desired frame shape appears, and then select it.

After changing the size and position of the frame, use the “Cutting Line Distance” keys to specify the distance of the cutting line from the edge of the satin stitching.



- ① Satin & Cut key
- ② Frame type keys
- ③ Frame resizing keys
- ④ Frame positioning keys
- ⑤ Cutting Line Distance keys
- ⑥ Distance between cutting line and edge of satin stitching (frame)

- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

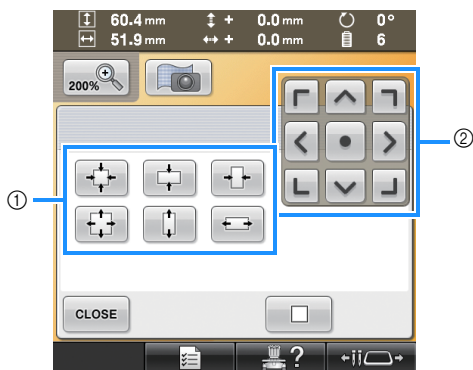
Editing Cutwork Patterns

■ **Notes on creating cutwork patterns**

- Cutwork cannot be created if the pattern is too large or too complicated or an outline has been applied to a combined pattern. Even if the selected pattern fits within the embroidering area, the entire pattern may exceed the embroidering area when the outline is added. For details on error messages that appear when creating patterns, refer to “ERROR MESSAGES” on page 32.
- We recommend using the imported cutwork patterns without editing them. Rotating or resizing cutwork patterns may cause the cutting line and pattern to become misaligned or it may not be cleanly cut. Be sure to sew trial embroidery using same fabric and threads as project in order to check the embroidering and cutting results.
- The color of the cutting line in the preview screens differ depending on the background color of the pattern display area.

■ Changing the size of cutwork patterns by using the stitch recalculator function (For use only with Upgrade Kit 1 sold separately)

The size of cutwork patterns **cannot** be changed using the stitch recalculator function. To enlarge or reduce the patterns, use the normal resizing mode.



- ① Frame resizing keys
- ② Frame positioning keys

Arranging Multiple Copies of a Single Pattern to Make All Cuts at One Time → ③

We recommend the following procedure for arranging multiple copies of a single pattern in order to make all cuts at one time.



Note

- When arranging multiple copies of a single pattern to make all cuts at one time, we recommend using the table sold separately (Part Code: PRWT1 (Americas), PRW1: XE8417-001 (Other area)) (or included with some models), in order to ensure a smooth flow of the fabric.

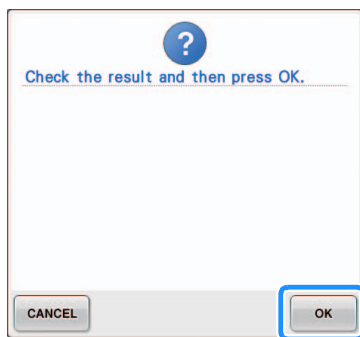
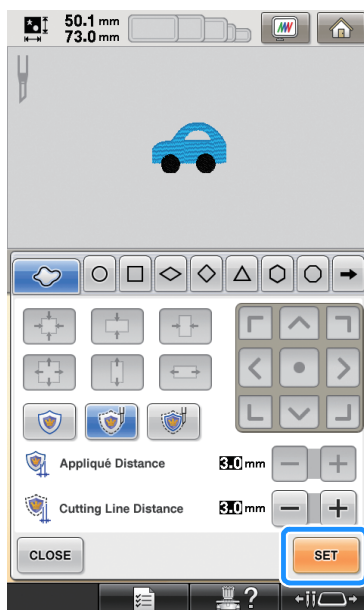


Memo

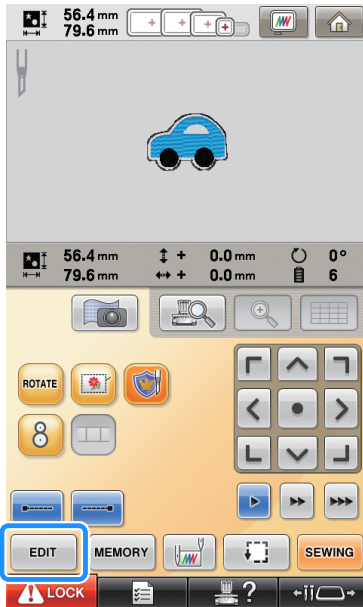
- The following procedure describes how to duplicate cutwork patterns using the editing functions built into your machine, so that all of the cutting steps are performed at one time. When using a cutwork pattern imported into the machine, start from step ④.


- 1 Follow steps ① and ② in “Cutting the fabric along the outline of a pattern” on page 23.

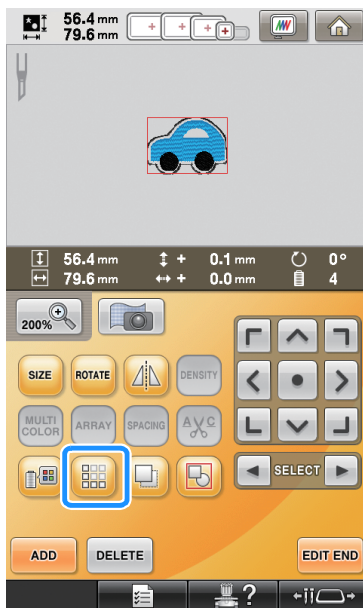
- 2 Touch **SET** and then touch **OK**.



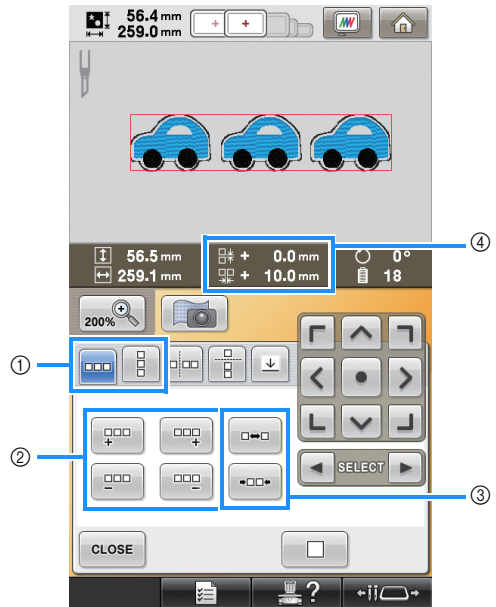
3 Touch **EDIT**.



4 Touch  in the pattern editing screen.



5 Select the direction in which the pattern will be repeated, and then adjust the spacing of the repeated pattern.



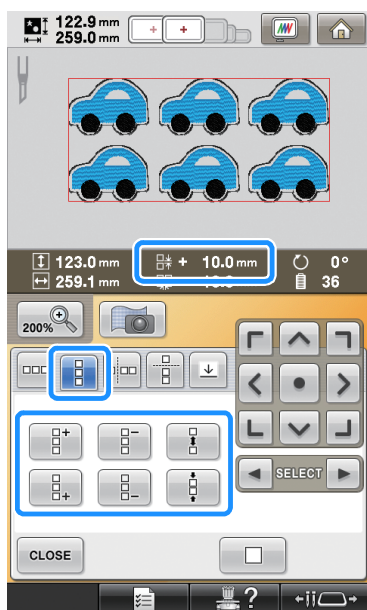
- ① Horizontal and vertical direction
- ② Repeating and deleting keys
- ③ Spacing keys
- ④ Pattern spacing



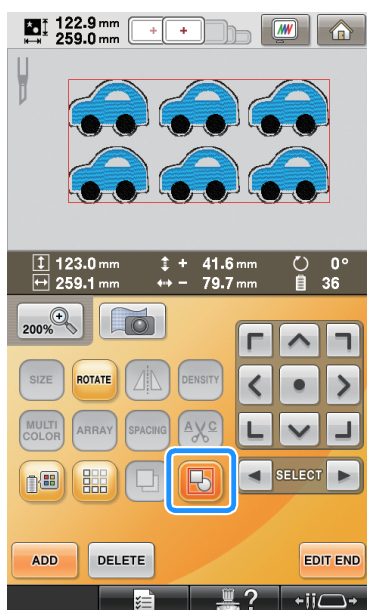
Note

- For details on the border function, refer to “Designing repeated patterns” in chapter 5 of your machine’s Operation Manual.
- We recommend spacing of more than 10 mm between the patterns. Making spaces of less than 10 mm may cause pattern shrinkage or distortion during embroidering and cutting.

- 6 Specify the settings for the vertical direction, and then touch **CLOSE**.



- 7 Touch  to ungroup the patterns.



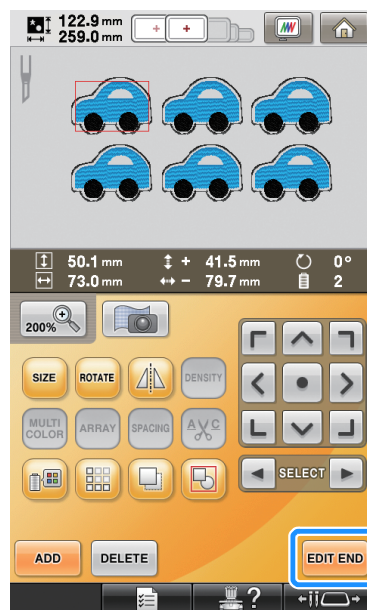
→ Color sorting in the sewing order is canceled.



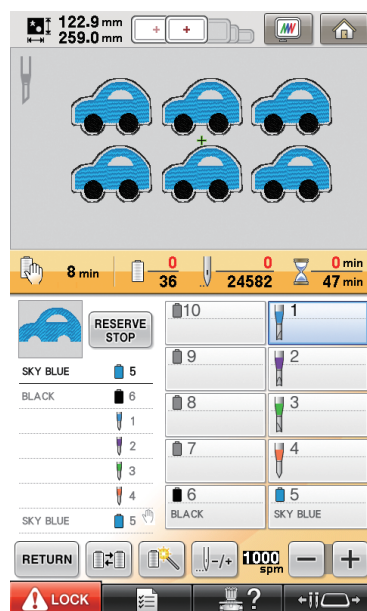
Note

- We recommend ungrouping the patterns in order to cancel color sorting and create a cleaner finish for the sewing.
- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.

- 8 Touch **EDIT END**, and then touch **SEWING** on the ensuing embroidering settings screen.



- 9 Check the machine display, and then start embroidering.



 **Memo**

- If the pattern that is used has no more than 6 colors (with the 10-needle machine) or no more than 2 colors (with the 6-needle machine), there will be no need to change the thread colors, resulting in a shorter sewing time.

Specifying Pause Locations Before Embroidering

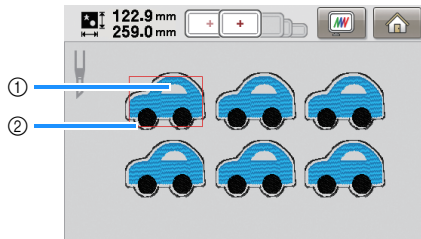
The timing for stopping the machine (pause locations) can be checked in the screen and, if necessary, pause locations can be specified. Pause locations can be specified in the change

thread color screen, displayed by touching .


By setting pause locations, as may be necessary, you can make sure if the embroidering is being successfully performed during an operation. Also, when creating cutwork by arranging multiple appliqué patterns, depending on the finished product, it may be necessary to pause the machine and change the fabric accordingly.


■ Checking/adding the pause location

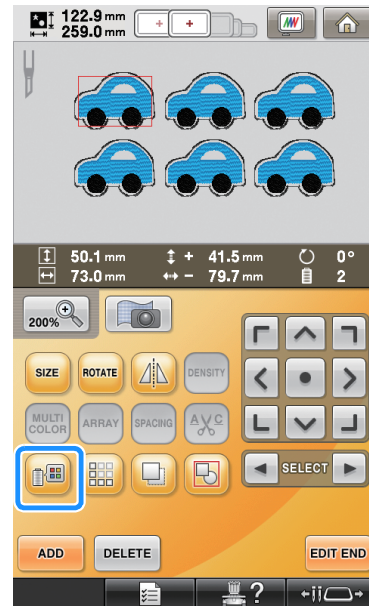
Create a sample of the procedure described in “Arranging Multiple Copies of a Single Pattern to Make All Cuts at One Time” following steps ① on page 26 through step ⑦ on page 28. The instructions on how to pause the machine before cutting the first pattern out are provided as follow.






- ① First pattern to be embroidered
- ② Cutting line

- 1 Touch  in the pattern editing screen that appears after you finish editing the patterns.

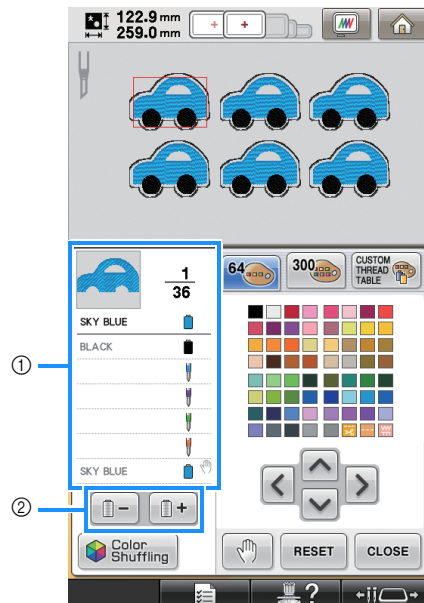
In this example, touch  after you ungroup the pattern shown in step ⑦ on page 28.



→ The change thread color screen appears.

- 2 Use  and  to check all the pause locations () displayed in the thread color sequence display.

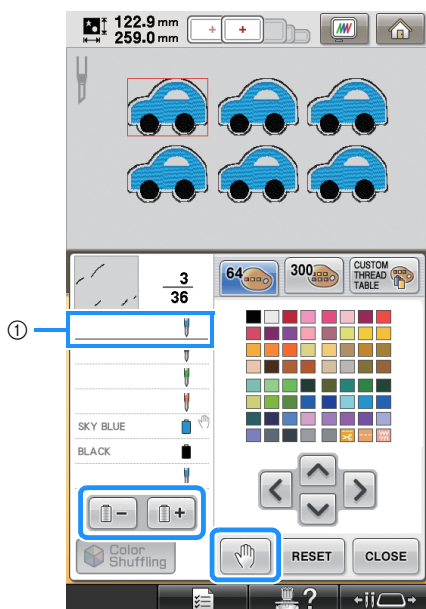
In this example, a pause location is specified before embroidery begins after a previous pattern is cut out.



- ① Thread color sequence display
- ② Select the next/previous color in the thread color sequence display.

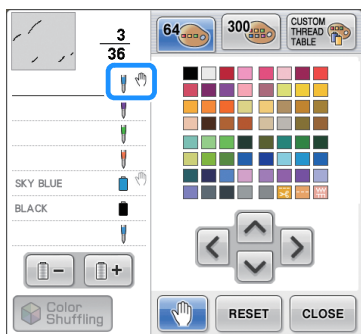
- 3 Use and to display the thread color (or cutwork needle) where the machine will be paused before being sewn (being cut) at the top of the thread color sequence display, and then touch .

In this example, specify a pause location as follow to pause the machine before the first pattern is cut out.



- ① Thread color (or cutwork needle) where you wish to stop the machine before embroidering it (cutting it)

→ appears to indicate where the machine will be paused.



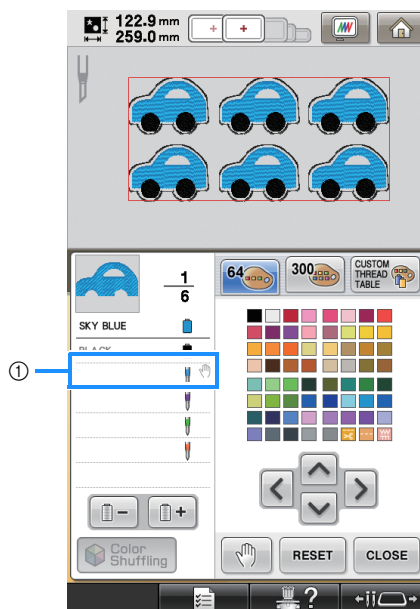
Note

- Complete pattern editing before you start checking/adding/deleting pause locations for the selected pattern.

- 4 Touch .

Memo

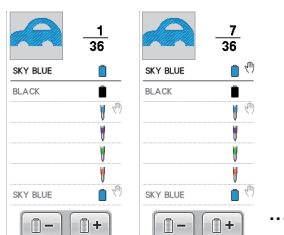
- If the patterns are grouped, the sewing order of colors in the combined border embroidery pattern is automatically changed so that the same color can be continuously sewn.



- ① Pause location

The pause locations are specified as follow after you ungroup the patterns by touching

in the pattern editing screen.



Deleting a pause location

Refer to step 3 to display the thread color (or cutwork needle) with the pause location to be deleted at the top of the thread color sequence display, and then touch . An unnecessary pause location can also be deleted after a trial embroidery.

CAUTION

- Be careful when deleting pause locations. If a pause location is incorrectly deleted, the fabric may be cut or embroidered at an unintended location.

Importing Cutwork Patterns

Importing

- Cutwork patterns cannot be imported if the machine is not in Cutwork mode.
- Cutwork patterns in the following data formats can be imported
 - PES*/PEN (some)/PHC (when saved on the machine's memory)
 - * Only cutwork patterns either included on the supplied CD-ROM or created in PE-DESIGN NEXT + CW can be correctly recognized and work properly with the cutwork functions.

Saving/Exporting Cutwork Patterns

Saving

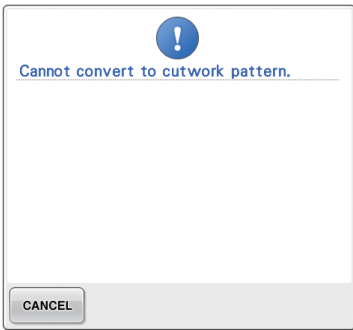
- Cutwork patterns can be saved in the machine's memory.
- Cutwork patterns saved on the machine's memory are all converted to data in the PHC format.

Exporting

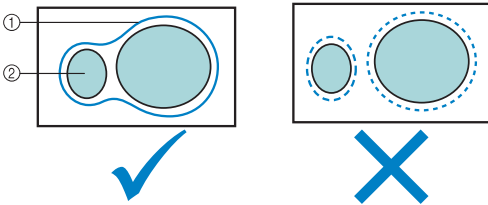
- Cutwork patterns cannot be exported.

ERROR MESSAGES

Depending on the pattern type or method used to create it, some cutwork patterns may not be created or imported properly. In these cases, error messages will appear. If the following error messages appear, select a different pattern or, if necessary, edit the pattern. Possible causes of errors and their solutions are described for various error messages.



When there are two or more objects recognized as cutwork patterns or appliqué pieces

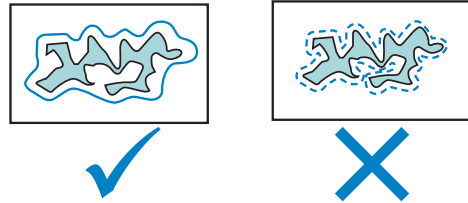


- ① Cutwork pattern or appliqué piece
- ② Input pattern

Solution

- Select a different pattern.
- Increase “**Appliqué Distance**” and “**Cutting Line Distance**” so that the combined pattern will have a single cutting line.
- Shorten the distance between the objects so that the combined pattern will have a single cutting line.

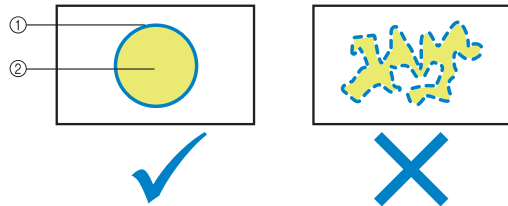
When the outline of a cutwork pattern or pattern used for appliqué piece is complicated



Solution

- Select a different pattern.
- Increase “**Appliqué Distance**” and “**Cutting Line Distance**” to simplify the outline.
- Reducing the size of the pattern may be useful depending on the pattern type.

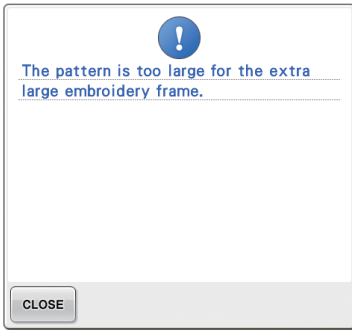
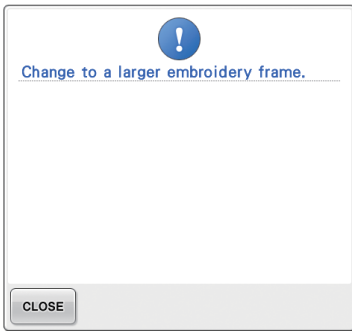
When “APPLIQUE MATERIAL” of an imported pattern is complicated



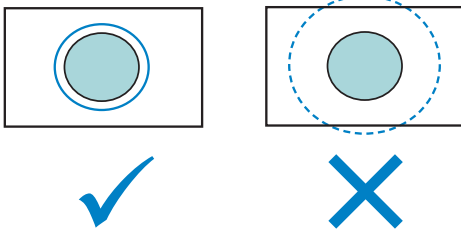
- ① Cutting line
- ② Input pattern

Solution

- Select a different pattern.
- Edit the pattern to simplify the shape of “**APPLIQUE MATERIAL**”.



When the cutting line for a cutwork pattern or appliqué piece exceeds the embroidering area



- Select a different pattern.
- Use a larger embroidery frame to hoop the fabric (when a larger frame is available for use).
- Reposition the selected pattern.
- Resize the selected pattern or decrease **“Appliqué Distance”** and **“Cutting Line Distance”** so that the cutting line fits within the embroidering area.

In order to import cutwork patterns, the machine must be switched to Cutwork mode. If the following error message appears, set the machine to Cutwork mode. For details, refer to “Switching to Cutwork Mode” on page 11.



brother®

PE-DESIGN

PERSONAL EMBROIDERY DESIGN SOFTWARE SYSTEM

Instruction Manual

NEXT

+CW



Video Tutorials Included on DVD

With Instruction Manual, view the instructional movies providing supplementary information about cutwork creation.



Please visit us at <http://solutions.brother.com> where you can get product support and answers to frequently asked questions (FAQs).

Please read before using this product

For designing beautiful embroidery designs

- This system allows you to create a wide variety of embroidery designs and supports a wider range of sewing attribute settings (thread density, sewing pitch, etc.). However, the final result will depend on your particular sewing machine model. We recommend that you make a trial sewing sample with your sewing data before sewing on the final material.

Notice

- Neither this Instruction Manual nor the Installation Guide explains how to use your computer under Windows®. Please refer to the Windows® manuals.

Copyright acknowledgment

- Windows® is a registered trademark of Microsoft Corporation. Other product names mentioned in the Instruction Manual and Installation Guide may be trademarks of registered trademarks of their respective companies and are hereby acknowledged.

Caution

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SAVE THESE INSTRUCTIONS
This product is intended for household use.

For additional product information and updates, visit our web site at:
<http://www.brother.com/> or <http://solutions.brother.com/>

■ Video Tutorials

Video tutorials are included on the supplied DVD. Instructional movies are available for the topics listed with the following DVD icons in this Instruction Manual.



Preparation

Videos of the preparation procedure can be viewed by clicking “Preparation” in the chapter index of the supplied DVD.



Basic Cutwork Embroidery

An instructional movie for basic cutwork embroidery can be viewed by clicking “Basic Cutwork Embroidery” in the chapter index of the supplied DVD.



Advanced Cutwork Embroidery

An instructional movie for advanced cutwork embroidery can be viewed by clicking “Advanced Cutwork Embroidery” in the chapter index of the supplied DVD.



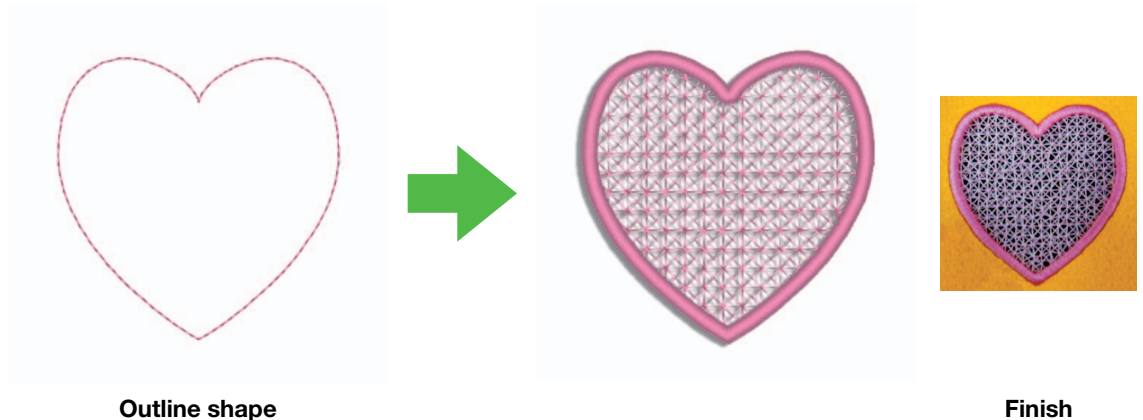
Cutwork Designs Creation on PC

An instructional movie for creating cutwork designs on your computer can be viewed by clicking “Cutwork Designs Creation on PC” in the chapter index of the supplied DVD.

New Features of PE-DESIGN NEXT + CW

■ Cutwork Wizard (👉 p. 10) 4

With the wizard, all settings for creating the cutting lines and stitching necessary for cutwork can be specified at the same time.

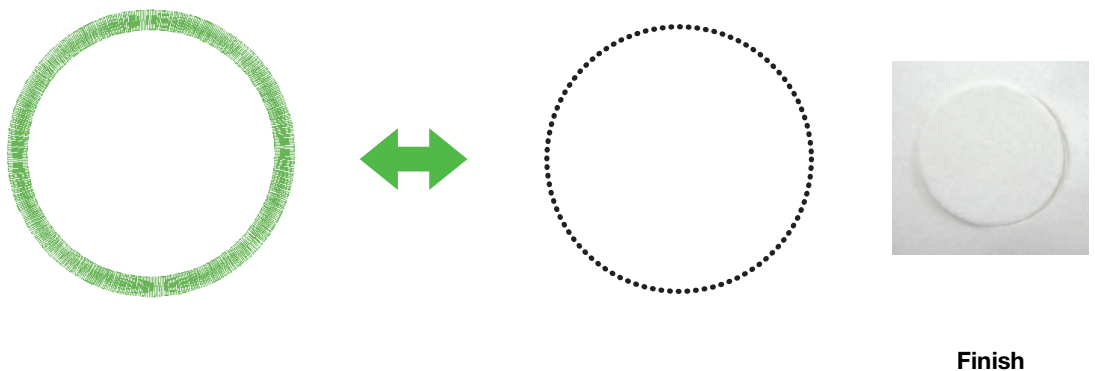


■ Create individual cutting lines (👉 p. 15) 4

When the sew type for a line is changed to a cutting line, the fabric will be cut along the line. By combining embroidery with cutting lines, you can design your own cutwork patterns.

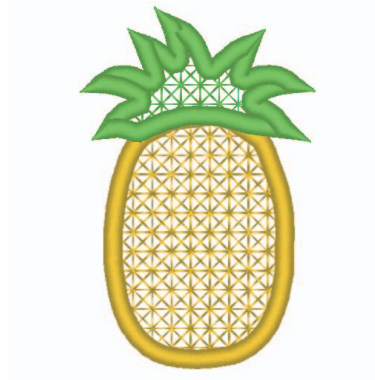
 Zigzag Stitch

 Cutting



■ Enhance designs with the net fill stitch (p. 15)

Cutout areas can be filled with different styles of net fill stitch.

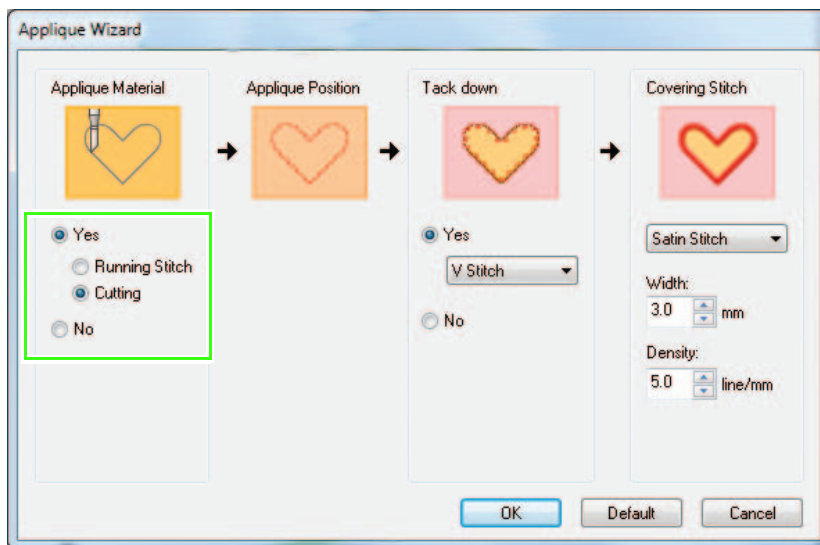


Finish

■ Upgraded “Applique Wizard” (p. 23)

Cut out appliqué pieces with cutwork needles

By setting the outline for the appliqué material to “**Cutting**”, instead of stitching (“**Running Stitch**”), the machine will cut out the appliqué pieces with the cutwork needles.

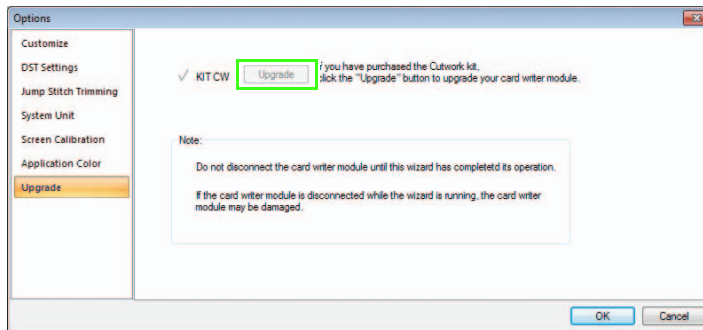


Basic Requirements for Cutwork Functions

■ Authenticate the upgrade

Click on “Option”, then, select “Options” from the menu to display the “Options” window as shown below. Select “Upgrade” from the menu list on left side of the window.

If the “Upgrade” button is grayed out, the cutwork functions are available. If the “Upgrade” button is highlighted, the cutwork functions are not available. Click on the “Upgrade” key to upgrade your card writer module.

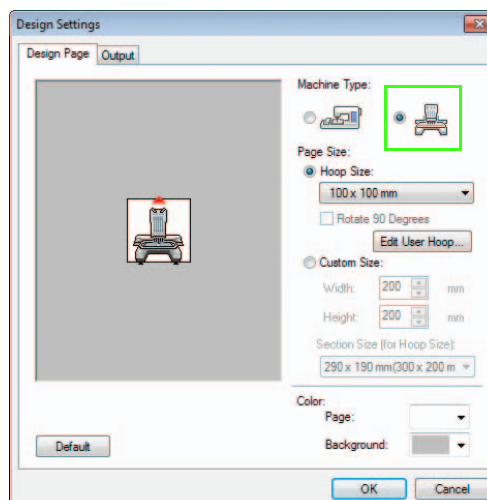


Note:

If “Upgrade” is not displayed in the menu list on the “Options” window, your PE-DESIGN is not upgraded yet. Refer to the Installation Guide to install the PE-DESIGN NEXT + CW.

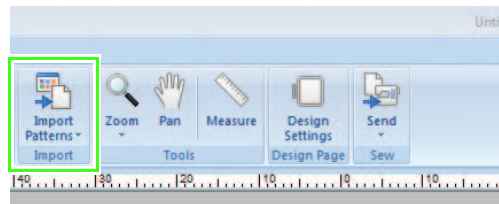
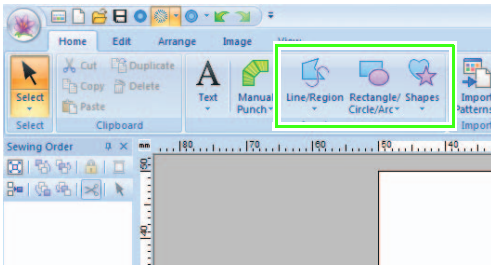
■ Set the “Machine Type” to multi-needle embroidery machine

For the Cutwork functions to be available in PE-DESIGN NEXT + CW, click on “Home” tab and then click on “Design Settings” in the “Design Page” tab. In the “Machine Type”, select multi-needle embroidery machine.

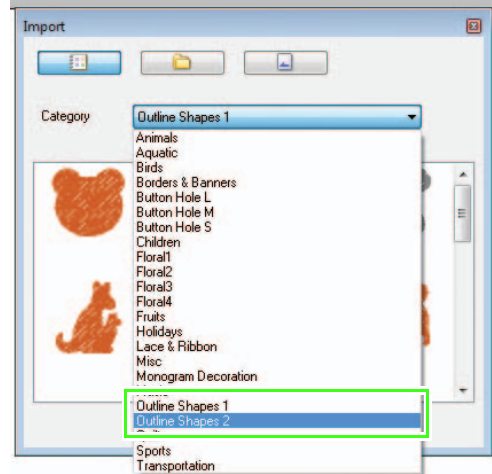
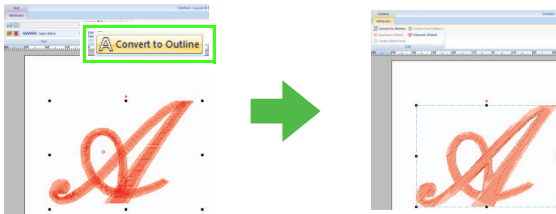


■ Only outline shapes can be used to create a cutwork pattern

- Outline shapes that have been drawn by the tools below
- Patterns in “**Outline Shapes 1**” and “**Outline Shapes 2**” in Design Library



- Text converted to outline shape



■ Use the multi-needle machine that has been upgraded to work with cutwork functions

The embroidery machine should be set to cutwork mode in the settings screen before starting to embroider. Refer to the included Operation Manual for the details of embroidery machine operation.

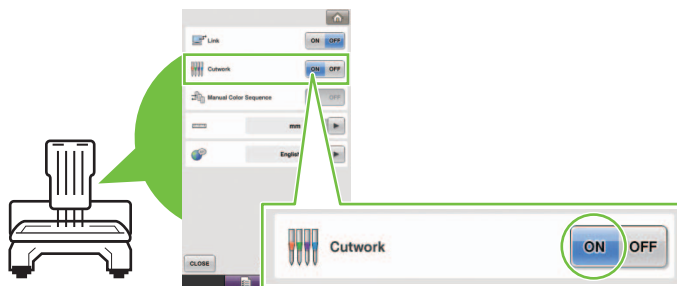






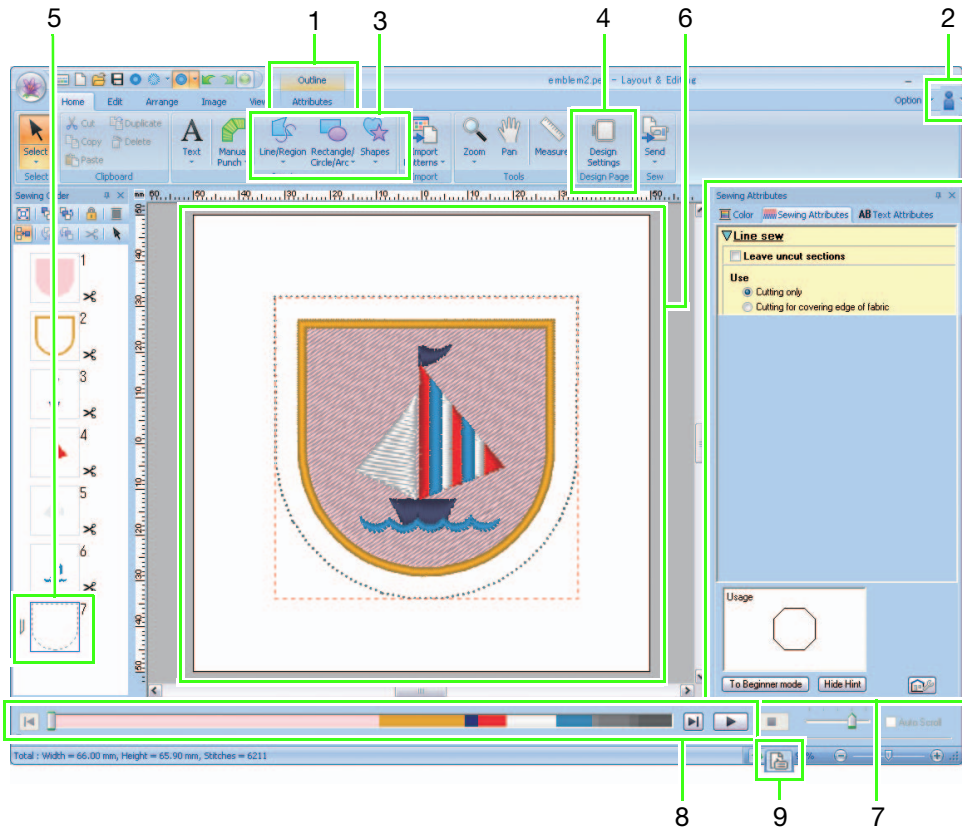
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Getting Started

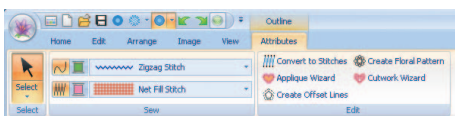
Layout & Editing Window

Cutwork patterns, combining embroidery and cutting with cutwork needles, can be created using this software. Let's look at the new functions that are added with the upgrade.



1 “Attributes”

When an outline shape is selected, the **“Attributes”** tab appears in the Ribbon. From this tab, the wizard can be selected as well as settings for the line sew type and region sew type.



2 Viewing manuals

Select **“Instruction Manual (Cutwork)”** clicking .

In addition to the Instruction Manual for PE-DESIGN NEXT, the Instruction Manual for cutwork (this manual), which describes the upgraded functions, can be viewed.

3 Outline tools

The cutwork functions can be applied to the lines and regions of shapes drawn with the Outline tools.

4 Setting “Machine Type”

For the Cutwork functions to be available in PE-DESIGN NEXT + CW, click on **“Home”** tab and then click on **“Design Settings”** in the **“Design Page”** tab. In the **“Machine Type”**, select multi-needle embroidery machine.

5 “Sewing Order”

The cutting lines appear in one frame in the **“Sewing Order”** pane, and the icon for the cutwork needle appears beside the frame.

6 Design Page

The cutting lines appear as gray dotted lines in the Design Page, regardless of whether the **“Solid View”**, **“Stitch View”** or **“Realistic View”** is selected.

7 “Sewing Attributes”

In the **“Sewing Attributes”** pane, detailed cutting settings can be specified for the cutwork functions.

8 Previewing cutting lines

In the Stitch Simulator pane, the cutwork needles are displayed in four different shades of gray.



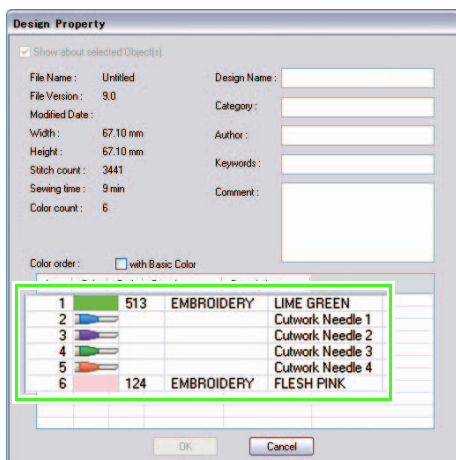
In a stitch simulation, the cutting lines appear as short gray lines, indicating the needle drop points for making the cuts.



While being edited In a stitch simulation

9 Checking “Design Property”

When **“Cutting”** has been assigned to a line from the **“Line Sew Type”** selector, **“Design Property”** screen appears as shown below.



Memo:

“Color order” can be also viewed in the **“Design Property”** screen in the Design Database.

Note:

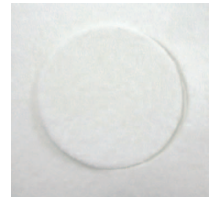
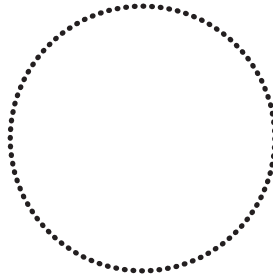
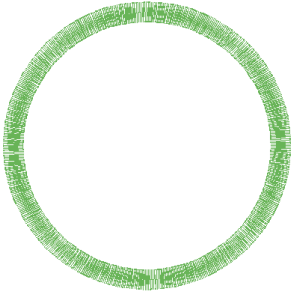
- Designs containing the line sew type **“Cutting”** are saved as cutwork patterns.
- Cutwork patterns can be edited only with a version of PE-DESIGN NEXT + CW that has the cutwork functions enabled.
- Created cutwork patterns can be used only with embroidery machines upgraded for cutwork.
- With PE-DESIGN NEXT + CW, the line sew type **“Cutting”** changes to **“Running Stitch”** in the following situations.
 - When the **“Machine Type”** setting (on the **“Design Page”** tab of the **“Design Settings”** dialog box) is changed from a multi-needle embroidery machine to a single-needle embroidery machine
 - When a cutwork pattern is imported while **“Machine Type”** (on the **“Design Page”** tab) is set to a single-needle embroidery machine
- Cutwork pattern cannot be transferred to a machine by using an embroidery card or the Link function.
- Cutwork pattern cannot be created in Design Center. To set the line sew type to **“Cutting”**, use Layout & Editing. The setting cannot be specified in Design Center.

Creating Cutting Lines 4


By changing the sew type for a line to a cutting line, fabric can be cut along the line.

 Zigzag Stitch

 Cutting



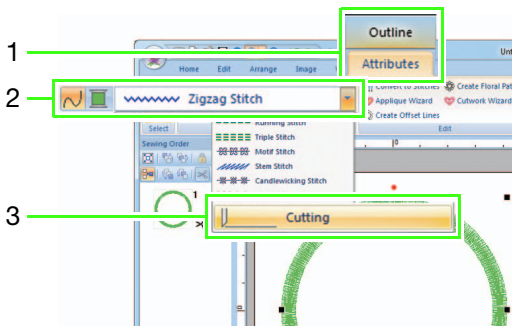
Finish


 **Note:**

Cutting lines can be created from outline shapes. (p. 4)

Specifying cutting lines in Layout & Editing

1. After selecting the outline shape to be made into a cutwork data, click 1, then 2, then 3.



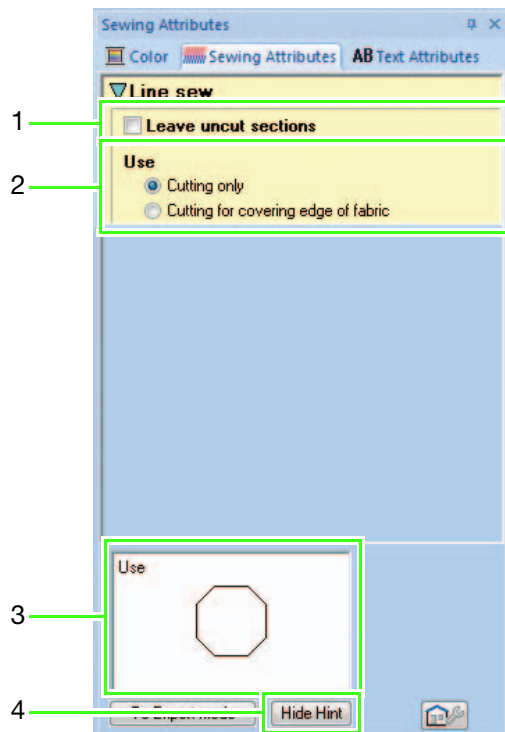
 **Note:**

When **“Cutting”** is selected, the line color and region sewing settings are not available, and the settings cannot be changed.

 **Memo:**

“Cutting” can be selected for open outline shapes as well as closed outline shapes.

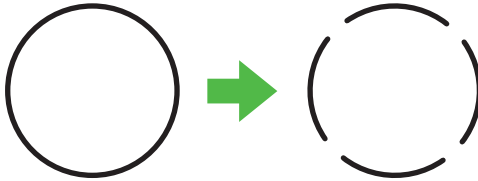
2. Specify the settings in the **“Sewing Attributes”** pane on the right side of the Layout & Editing window.



1 Leave uncut sections (Default: OFF)

Select whether or not sections of the cutting line are to be left uncut.

This prevents the fabric from moving out of place during cutting.



Note:

- If the cutting lines were set to **“Leave uncut sections”**, cut them with scissors after the cutting step is finished.
- When making a cutting line for an appliqué piece, be sure to select **“Leave uncut sections”**.

2 Use

Cutting only The cut edges will be cleanly finished. Select this setting for patterns where the cut edges will be left exposed, for example, with patches.

Cutting for covering edge of fabric Only 2 cutwork needles are used to cut edges. Cutting speed is given priority over the finish of the cut edges when embroidering complicated pattern with cutting line from several angles. Select this setting if the cut edges will be covered with satin stitching.

3 Hint view

This shows a preview of the cutting lines with the settings selected in 1 and 2 applied.

By moving the pointer over each setting, a preview of the setting can be displayed.

4 Click to display or hide the hint view (3).

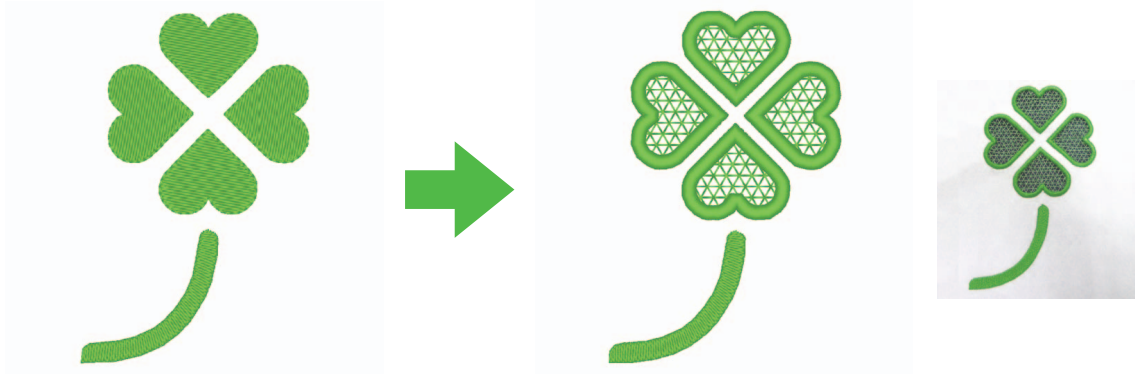
Memo:

The **“Color”** pane is not available in the following situations.

- When **“Cutting”** has been selected for the pattern selected in the Design Page.
- When **“Cutting”** has been selected for the frame selected in the **“Sewing Order”** pane.

Tutorial 1: Creating a Cutwork Pattern Filled with Net Stitching (Cutwork Wizard)

By using the “**Cutwork Wizard**”, a cutwork pattern can easily be created.



Finish

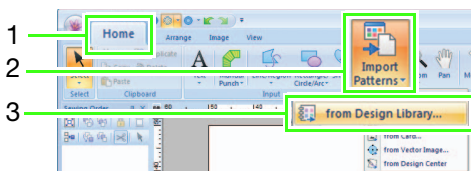
The sample file for this tutorial can be found at the following location.

Documents (My Documents)\PE-DESIGN NEXT\Tutorial\TutorialCW_1

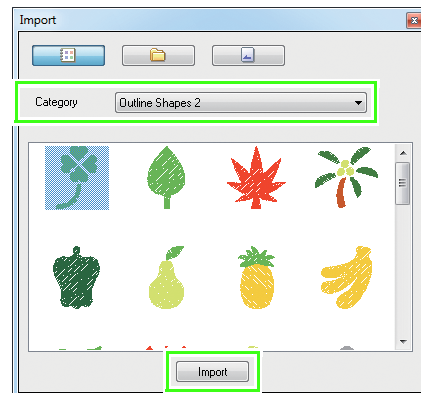
[Step 1]	Creating an outline shape for cutwork
[Step 2]	Using the “Cutwork Wizard”
[Step 3]	Transferring/saving/exporting the cutwork patterns


Step 1 Creating an outline shape for cutwork

1 Click 1, then 2, then 3 to display the Import dialog box.

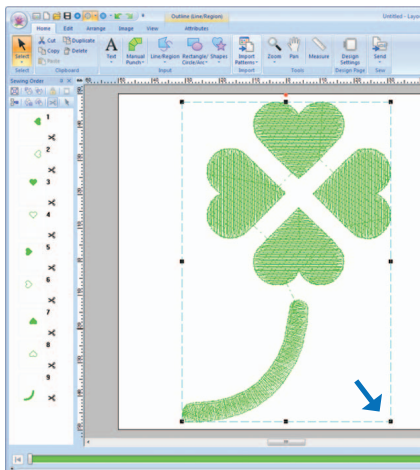


2 Select “**Outline Shapes 2**” from the “**Category**” selector, select the clover pattern in the upper-left corner, and then click “**Import**”. The pattern is imported into the Design Page.

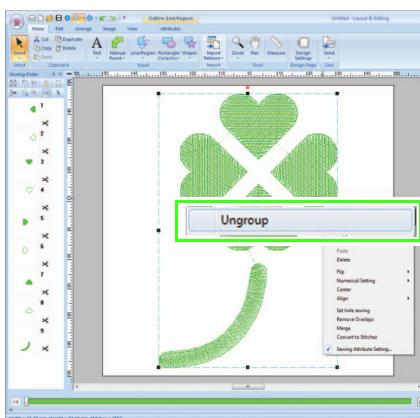


 **Memo:**
Patterns in “**Outline Shapes 1**” and “**Outline Shapes 2**” are appropriate for creating the cutwork patterns.

- 3 Enlarge the pattern imported into the Design Page. While holding down the **Shift** key, drag a handle to enlarge the pattern from the center.

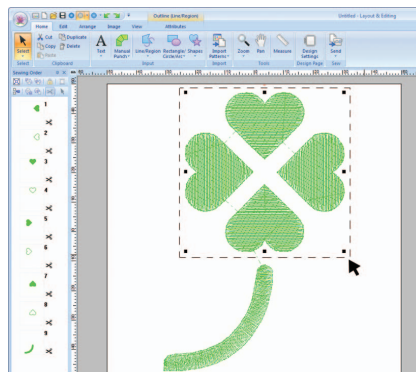


- 4 Ungroup the pattern. Select the pattern, right-click it, and then click **“Ungroup”**.

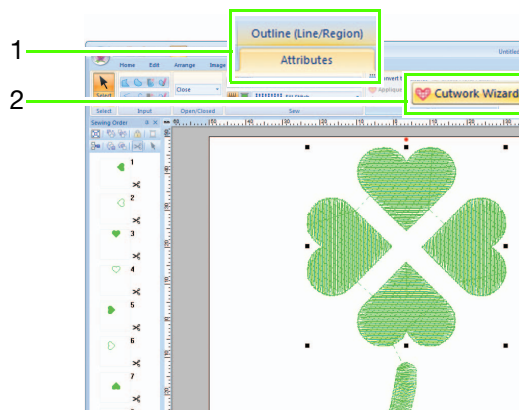


Step 2 Using the “Cutwork Wizard”

- 1 Drag the pointer over the four leaves to select them.



- 2 Click 1, then 2 to start the Cutwork Wizard.



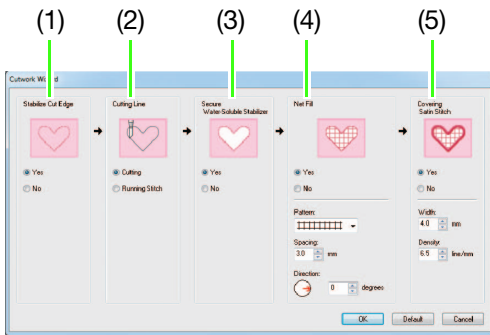
Memo:

- The Cutwork Wizard can also be used if multiple outline shapes (outlines and inside regions) are selected.
- If a line of the pattern crosses itself, the Cutwork Wizard will not be available.

Note:

If **“Machine Type”** (on the **“Design Page”** tab of the **“Design Settings”** dialog box) is set to a single-needle embroidery machine, Cutwork Wizard is not available.

- 3 Specify settings in the Cutwork Wizard in the following order (1) - (5).

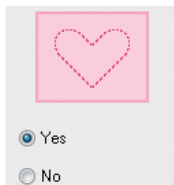


- (1) Stabilize Cut Edge
- (2) Cutting Line
- (3) Secure Water-Soluble Stabilizer
- (4) Net Fill
- (5) Covering Satin Stitch

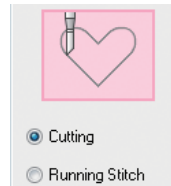
Memo:

- The settings specified in the wizard are stored with the software and recalled the next time that the wizard is started.
- To return all parameters to their default settings, click **“Default”**.

- 4 Specify running stitching along the edge before cutting in **“Stabilize Cut Edge”**.
By specifying that running stitches be sewn before the fabric is cut, the cut edges are reinforced, preventing them from unraveling. For this example, select **“Yes”**.

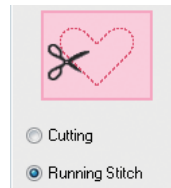


- 5 Specify cutting line type in **“Cutting Line”**.
Select whether the fabric will be cut along the cutting line or whether the cutting line will remain as running stitches. For this example, select **“Cutting”**.



Cutting (default)

Select this setting to cut the fabric with a machine installed with cutwork needles.



Running Stitch

Select this setting to sew the cutting line, then cut along the cutting line with scissors.

- 6 Specify securing of the water-soluble stabilizer in **“Secure Water-Soluble Stabilizer”**.
Running stitches will be sewn to secure the water-soluble stabilizer after the fabric has been cut. In order to prevent embroidery from losing its shape after it has been cut, place water-soluble stabilizer in the cutout areas and sew it in place. For this example, select **“Yes”**.



- 7** Specify net fill stitching inside the cutout areas in **“Net Fill”**.

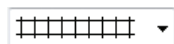
By sewing net fill stitching in cutouts, inner cutouts can be reinforced while allowing for a greater design variety.
For this example, select **“Yes”**.



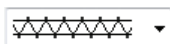
Select the parameters according to the procedure from step **8** to **10**, when **“Net Fill”** is set to **“Yes”**.

- 8** Specify the net fill stitch pattern in **“Pattern”**.

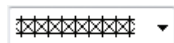
Three net fill stitch patterns are available. For this example, select **“Pattern 2”**.



Pattern 1



Pattern 2



Pattern 3

- 9** Specify the pattern spacing for the net fill stitch in **“Spacing”**.

For this example, set it to **“3.0 mm”**.



2.0 mm

10.0 mm

- 10** Specify the pattern direction of the net fill stitch in **“Direction”**.

For this example, set it to **“0°”**.

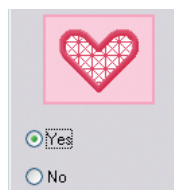


0°

90°

- 11** Specify satin stitching after cutting in **“Covering Satin Stitch”**.

Satin stitching is sewn along the edges of inner cutouts.
The zigzag stitch or the stem stitch is used as an underlay for the satin stitching.
For this example, select **“Yes”**.



Select the parameters according to the procedure from step **12** to **13**, when **“Covering Satin Stitch”** is set to **“Yes”**.

- 12** Specify the width of the satin stitching in **“Width”**.

For this example, set it to **“4.0 mm”**.



3.0 mm

6.0 mm

- 13 Specify the density of the satin stitching in “Density”.

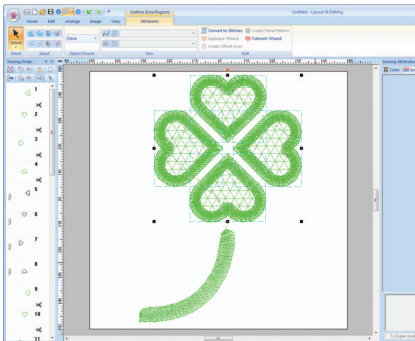
For this example, set it to “6.5 line/mm”.



5.0 line/mm

7.0 line/mm

- 14 Click “OK” to exit the Cutwork Wizard.



Transferring/saving/exporting the cutwork patterns

In addition to transferring cutwork patterns to a machine, they can be saved or printed.

Transferring

Transferring using USB media

By using commercially available USB media, cutwork patterns can be transferred to embroidery machines compatible with the USB media. For details, refer to “Transferring Data” in the Instruction Manual for PE-DESIGN NEXT.

Transferring directly to a machine’s memory

Cutwork patterns can be transferred to embroidery machines that can be connected to a computer using a USB cable.

For details, refer to “Transferring Data” in the Instruction Manual for PE-DESIGN NEXT.

Note:

- Cutwork patterns cannot be transferred to a machine by using an embroidery card or the Link function.
- The cutwork patterns can be transferred to embroidery machine only after the upgrade has been installed and certified to the machine.

Saving

Saving cutwork patterns in the PES format

For details, refer to “Saving and Printing” in the Instruction Manual for PE-DESIGN NEXT.

Note:

- Designs containing the line sew type “Cutting” are saved as cutwork patterns.
- When saving cutwork patterns and patterns with a region sew type set to “Net Fill Stitch”, select “Layout & Editing Ver. 9.2. File (*.PES)” in the “Save as type” list in the “Save As” dialog box. Data saved in this PES format can be edited only with PE-DESIGN NEXT + CW.

Exporting

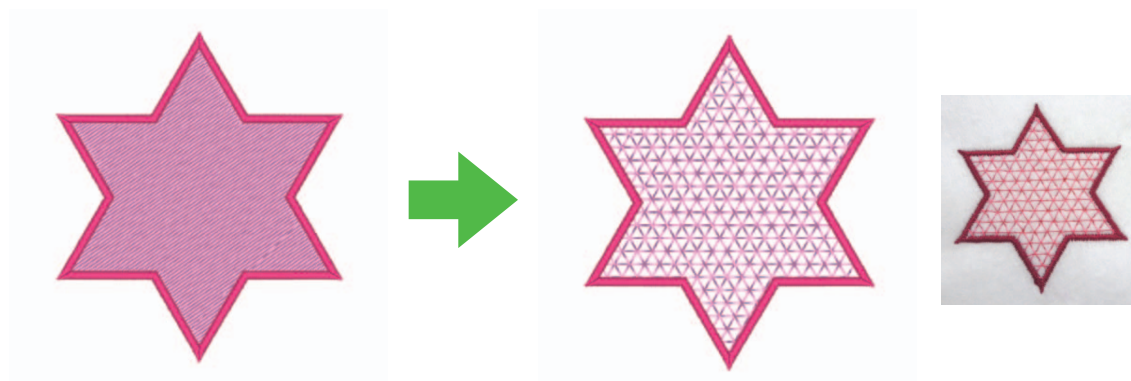
Exporting cutwork patterns in other formats

Created cutwork patterns can be converted to other formats (.dst, .hus, .exp, .pcs, .vip, .sew, .jef, .csd, .xxx, and .shv) and outputted.

When exported as another format, the cutting lines will be changed to a running stitch.

Detailed Settings for the Net Fill Stitch

If the net fill stitch is used, net-like embroidery can be created in specified regions. In addition to the “**Cutwork Wizard**”, these settings can be specified in Layout & Editing.



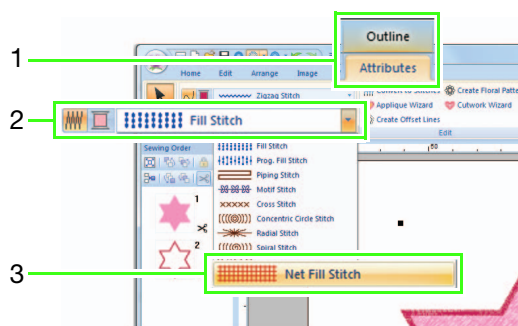
Finish

Note:

Cutting lines can be created from outline shapes. (p. 4)

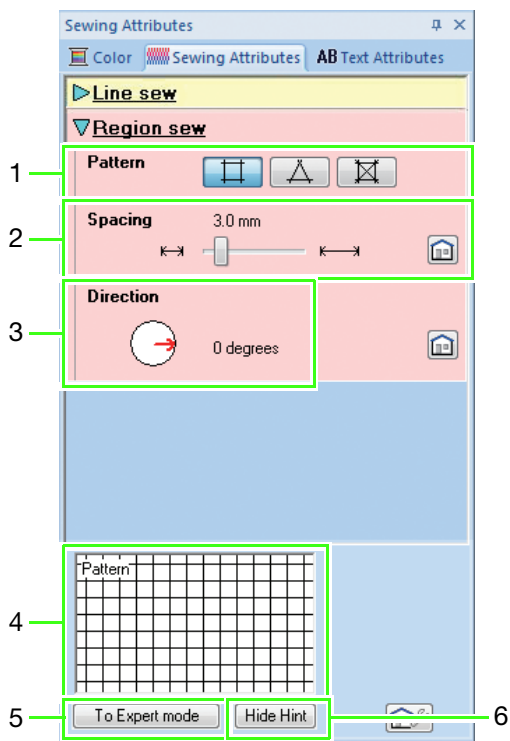
Using the net fill stitch in Layout & Editing

1. After selecting the region to be filled with net fill stitching, click 1, then 2, then 3.

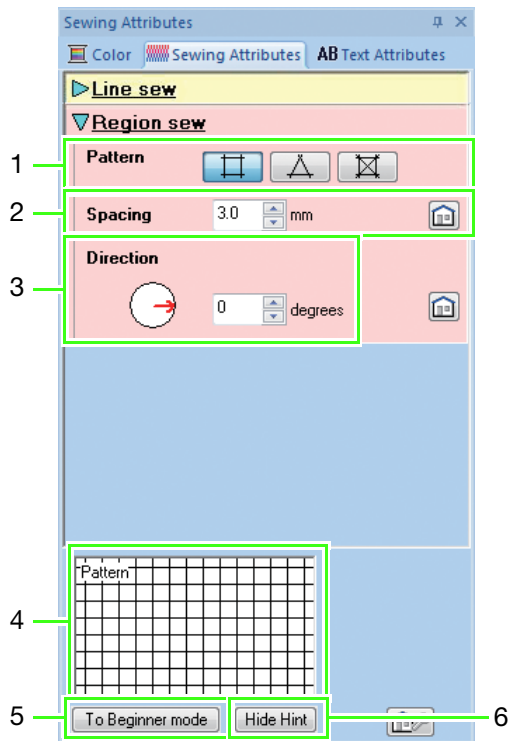


2. Specify the net fill stitch settings in the “**Sewing Attributes**” pane on the right side of the Layout & Editing window.

Beginner mode

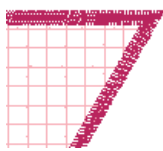


Expert mode

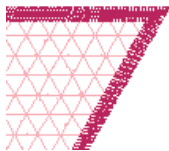


1 Pattern

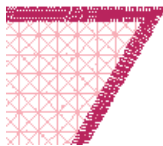
Select one of the following net fill stitch patterns.



Pattern 1



Pattern 2



Pattern 3

2 Spacing

Adjust the pattern spacing for the net fill stitch.

3 Direction

Adjust the pattern direction of the net fill stitch.

4 Hint view

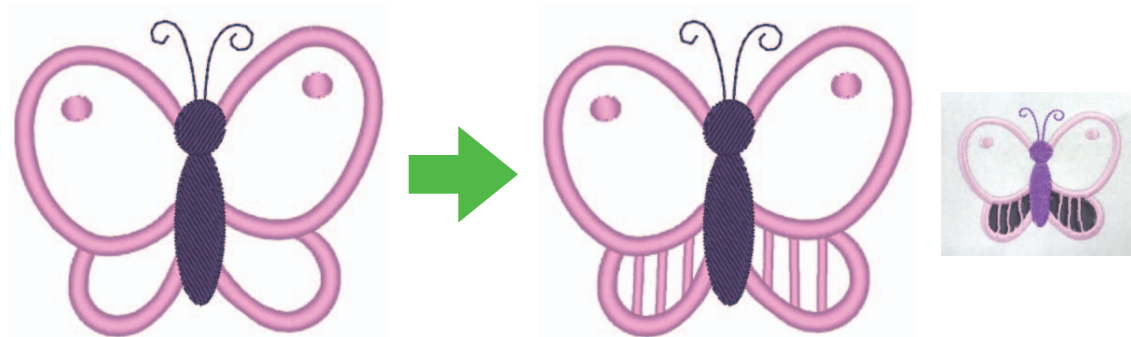
A preview of the pattern appears with the selected settings applied.

By moving the pointer over each setting, a preview of the setting can be displayed.

- 5 Click to switch the attributes between those for Beginner mode and those for Expert mode.
- 6 Click to display or hide the hint view (4).

Tutorial 2: Creating Cutwork Patterns From Favorite Embroidery Patterns

In this tutorial, create heirloom style cutwork with Richelieu bars.



Finish

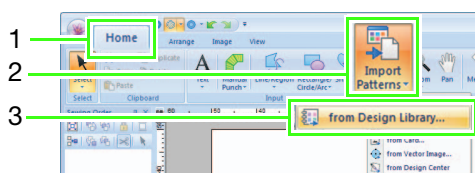
The sample file for this tutorial can be found at the following location.

Documents (My Documents)\PE-DESIGN NEXT\Tutorial\TutorialCW_2

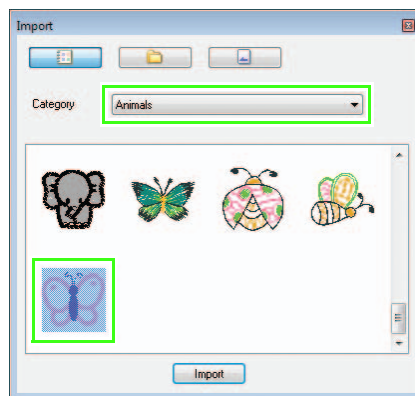
[Step 1]	Importing a pattern
[Step 2]	Drawing outlines to create cutting lines
[Step 3]	Converting outlines to cutting lines
[Step 4]	Specify color in cutwork outlines
[Step 5]	Adding Richelieu bars
[Step 6]	Changing sewing order

Step 1 Importing a pattern

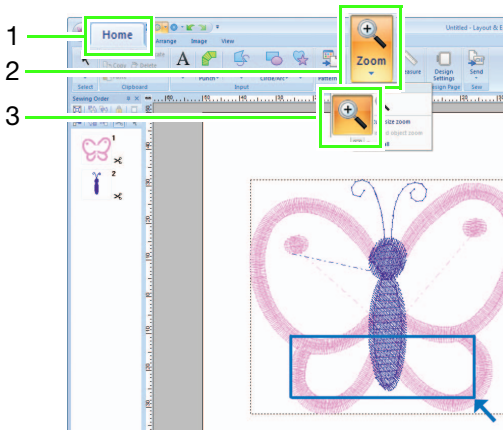
- 1 Click 1, then 2, then 3 to display the Import dialog box.



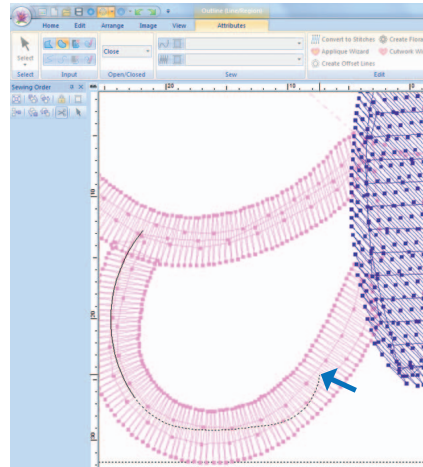
- 2 Select **"Animals"** from the **"Category"** selector, select the butterfly pattern in the lower-left corner, and then click **"Import"**. The pattern is imported into the Design Page.



- 3 Click 1, then 2, then 3 to select the **“Zoom In”**, and then drag the pointer over the area where the cutting line is to be made in order to enlarge it.

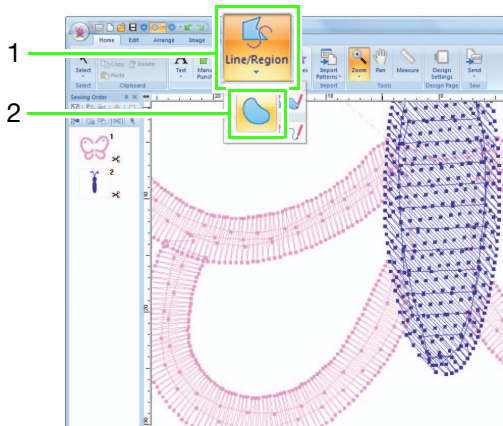


- 3 Click along the line in the center of the satin stitch to outline the area to be cut out.

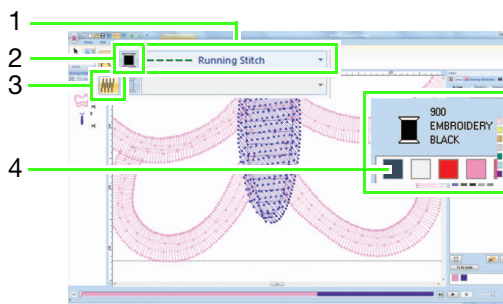


Step 2 Drawing outlines to create cutting lines

- 1 Click 1, then 2.



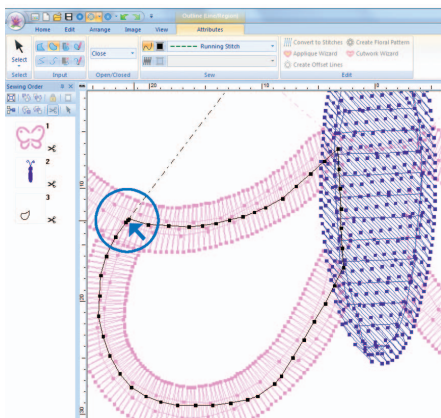
- 2 Click in the **“Line Sew Type”** selector (1) and then select **“Running Stitch”**. Click 2 and then select **“Black”** in the **“Color”** pane (4). Click 3 to turn off **“Region sew type”**.



Memo:

- Click the left mouse button to add a point.
- Double-click or press the **Enter** key to finish drawing.
- Press the **BackSpace** key to remove the last point that was entered.
- Hold down the **Z** key before clicking in order to draw a straight line.
- Hold down the **X** key before clicking in order to draw a curved line.
- For detailed procedure, refer to “Drawing outlines (straight lines and curves)” of “Drawing Shapes” in the chapter of “Basic Layout & Editing Operations” of the Instruction Manual for PE-DESIGN NEXT.

- 4 Double-click to finish drawing the line.

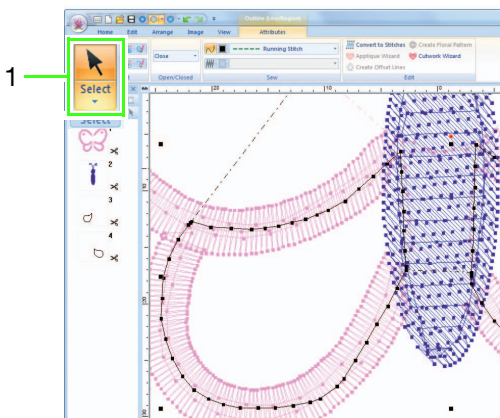


Memo:

- If a line of the pattern crosses itself, the Cutwork Wizard will not be available.
- After finish drawing the line, line can be reshaped by selecting and editing the points. For detailed procedure, refer to "Reshaping Embroidery Patterns" in the chapter of "Basic Layout & Editing Operations" of the Instruction Manual for PE-DESIGN NEXT.

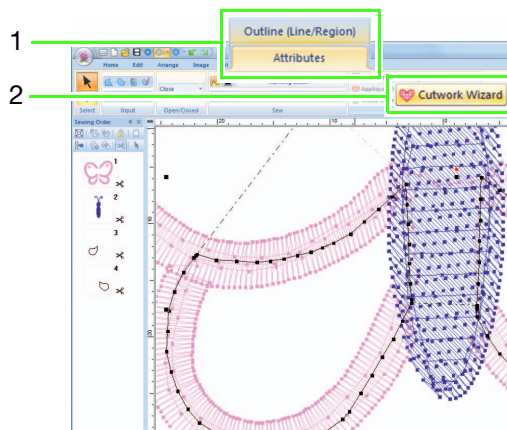
- 5 Repeat steps 3 and 4 to draw a line around the area to be cut out in the lower-right corner.

- 6 Click 1 and then select the two lines drawn in step 4 to 5 while holding down the **Ctrl** key.

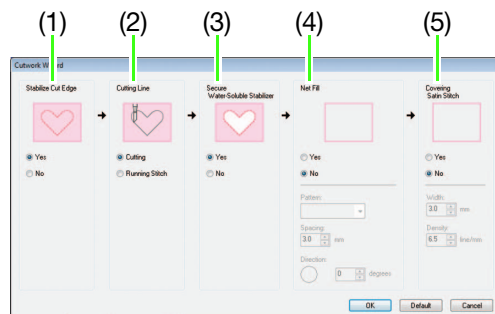


Step 3 Converting outlines to cutting lines

- 1 Click 1, then 2 to start the Cutwork Wizard.



- 2 Specify settings in the Cutwork Wizard in the following order (1) – (5).

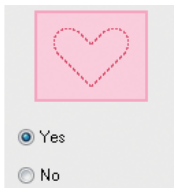


- (1) Stabilize Cut Edge
- (2) Cutting Line
- (3) Secure Water-Soluble Stabilizer
- (4) Net Fill
- (5) Covering Satin Stitch

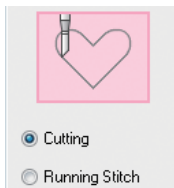
Memo:

- The settings specified in the wizard are stored with the software and recalled the next time that the wizard is started.

- 3 Specify running stitching along the edge before cutting in **“Stabilize Cut Edge”**.
For this example, select **“Yes”**.



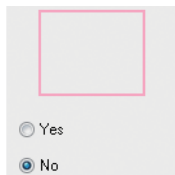
- 4 Specify cutting line type in **“Cutting Line”**.
For this example, select **“Cutting”**.



- 5 Specify securing of the water-soluble stabilizer in **“Secure Water-Soluble Stabilizer”**.
For this example, select **“Yes”**.



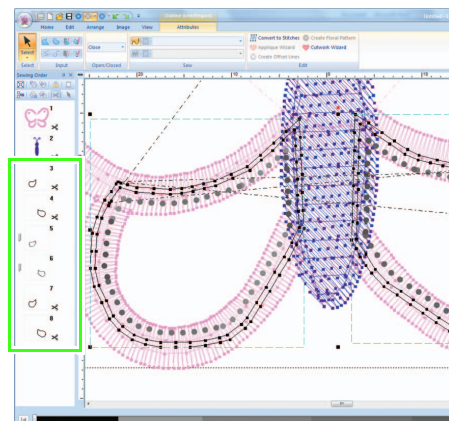
- 6 Specify net fill stitching inside the cutout areas in **“Net Fill”**.
For this example, select **“No”**.



- 7 Specify satin stitching after cutting in **“Covering Satin Stitch”**.
For this example, select **“No”**.

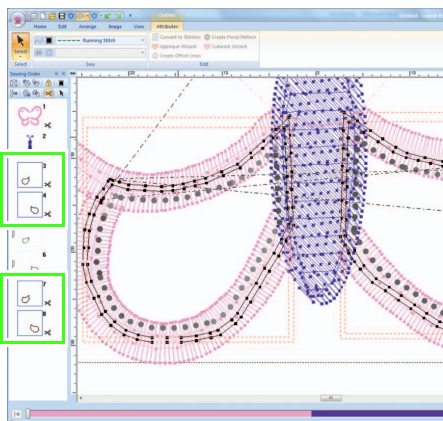


- 8 Click **“OK”** to exit the Cutwork Wizard. New frames of outline (3 through 8 for this example) are added by Cutwork Wizard in the **“Sewing Order”** pane.

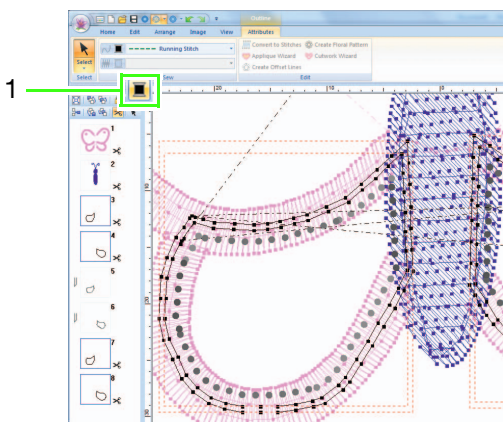


Step 4 Specify color in cutwork outlines

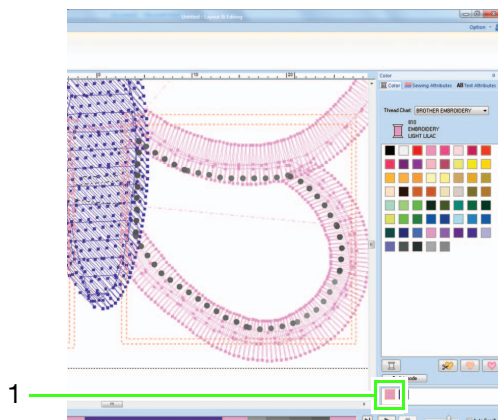
- 1 In the **"Sewing Order"** pane, while holding down the **(Ctrl)** key, select all frames for outlines (3, 4, 7 and 8 for this example) except frames for cutting lines (cutwork needles appear on the left side of the frames) added with the Cutwork Wizard.



- 2 Click 1 to display the **"Color"** pane.

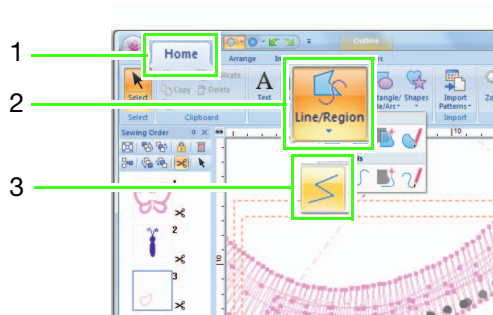


- 3 Click the box (1) on the left side at the bottom of the **"Color"** pane to select **"LIGHT LILAC"** as the line color.

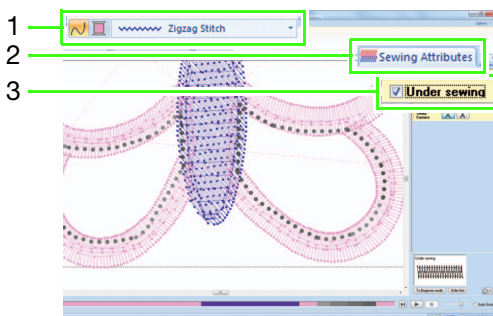


Step 5 Adding Richelieu bars

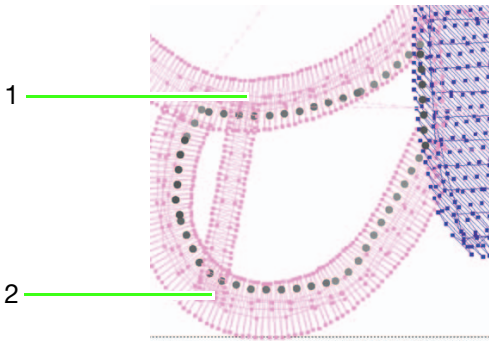
- 1 Click 1, then 2, then 3.



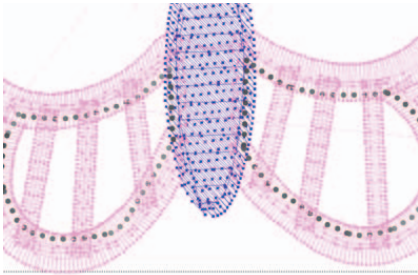
- 2 Click in the **"Line Sew Type"** selector (1) and then select **"Zigzag Stitch"**, and then select the **"Under sewing"** check box (3) in the **"Sewing Attributes"** pane (2).



- 3 Click 1, then double-click 2 to add the lines of satin stitching that cross over the cutting lines around the area to be cut out.

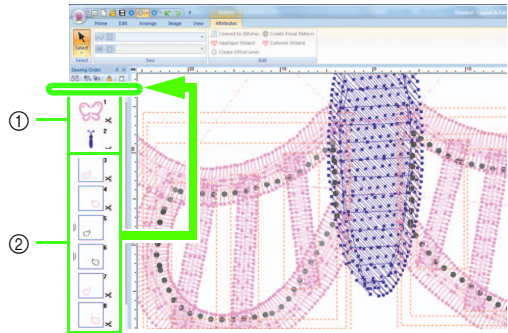


Add all the lines in the same way.

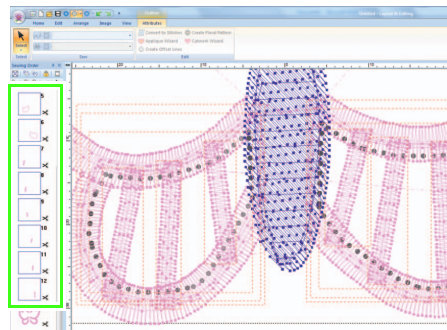


Step 6 Changing sewing order

- 1 In the “Sewing Order” pane, hold down the **Ctrl** key and select all frames of added outlines and cutting lines (3 through 14 for this example)②, and then drag them to the beginning.



- ① Original frames of the pattern
② Added frames for outlines and cutting lines

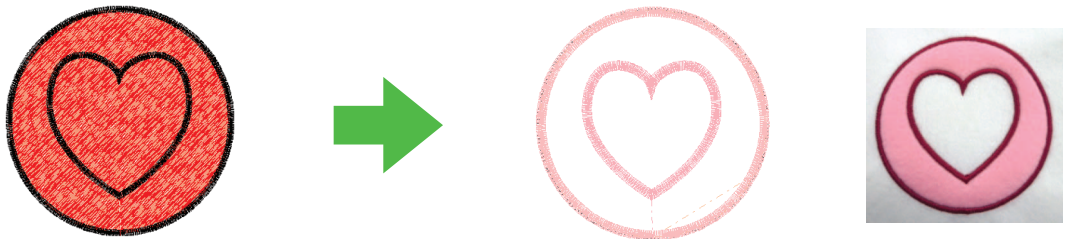


Tutorial 3: Creating an Appliqué with a Design that has Cutouts (Applique Wizard)

The machine can make an appliqué by cutting it out, instead of simply sewing running stitches to indicate its outline.

Embroidery machines upgraded for cutwork and installed with the cutwork needles can use the data for the cutting lines to automatically cut out the appliqué pieces.

For details on embroidering appliqués, refer to the Operation Manual included with the machine.



Finish

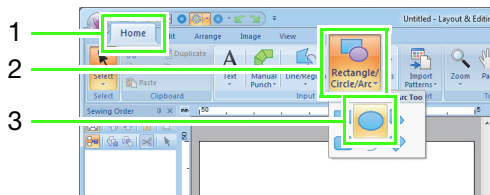
The sample file for this tutorial can be found at the following location.

Documents (My Documents)\PE-DESIGN NEXT\Tutorial\TutorialCW_3

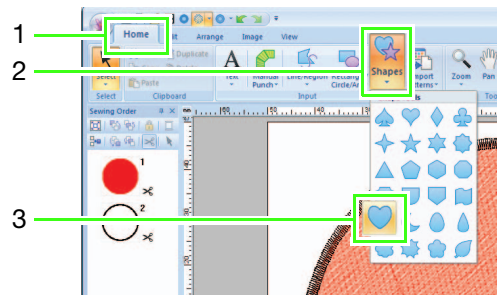
[Step 1]	Creating an appliqué pattern
[Step 2]	Using the “Applique Wizard”

Step 1 Creating an appliqué pattern

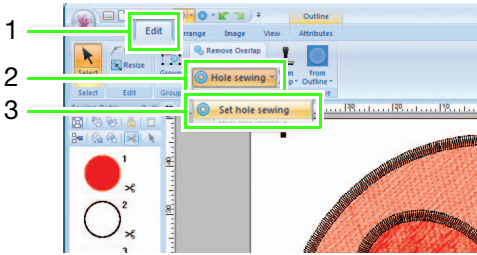
1 Click 1, then 2, then 3, and then drag the pointer in the Design Page to draw a circle.



2 Click 1, then 2, then 3, and then drag the pointer in the Design Page to draw a heart on top of the circle.



- 3 Select the two patterns, and then click 1, then 2, then 3 to apply hole sewing.

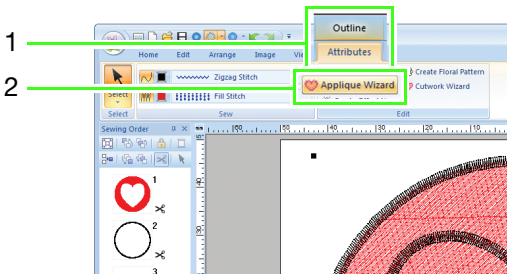


Memo:

For details, refer to **“Hole sewing”** in the Instruction Manual for PE-DESIGN NEXT.

Step 2 Using the “Applique Wizard”

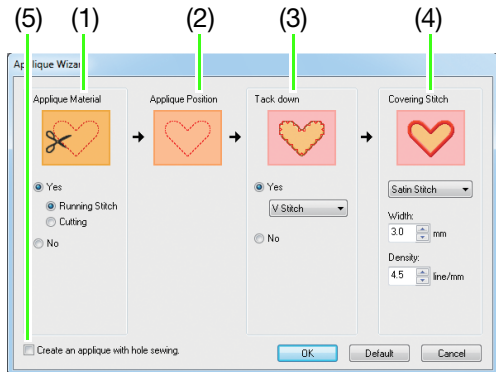
- 1 Select the outer pattern, and then click 1, then 2 to start the Applique Wizard.



Memo:

Be sure to select the outer pattern before starting the Applique Wizard.

- 2 Specify settings in the Applique Wizard in the following order (1) - (5).

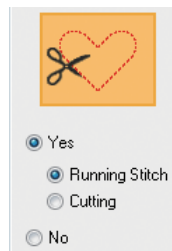


- (1) Applique Material
- (2) Applique Position
- (3) Tack down
- (4) Covering Stitch
- (5) Create an applique with hole sewing

- 3 Specify cutting lines for the appliqué in **“Applique Material”**.

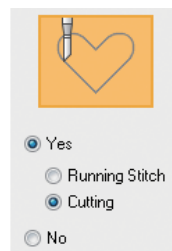
→ The outline of the appliqué can be sewn as running stitches or the appliqué can be cut out.

For this example, select **“Yes”** then **“Cutting”**.



Running Stitch (default)

Select this setting to sew the cutting line with a machine installed with an embroidery needle, then cut along the cutting line with scissors.

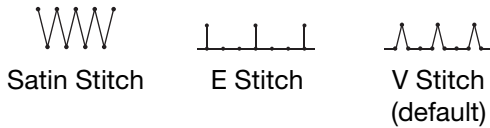


Cutting

Select this setting to cut the fabric with a machine installed with cutwork needles.

- 4 “**Applique Position**” is specified automatically.
 → The guideline for attaching the appliqué piece is set to be sewn automatically.

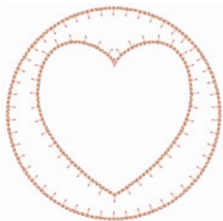
- 5 Specify basting of the appliqué in “**Tack down**”.
 → The appliqué piece can be basted onto the base fabric. Select one of three stitches.
 For this example, select “**Yes**” then “**V Stitch**”.



- 6 Specify the stitching for securing the appliqué in “**Covering Stitch**”.
 → Select the sew type and other attributes (“**Width**” and “**Density**”) for finishing the appliqué.
 For this example, select “**Satin Stitch**”, and then set “**Width**” to “**3.0 mm**” and “**Density**” to “**5.0 line/mm**”.



“**Satin Stitch (default)**”
 Settings can be specified for “**Width**” and “**Density**”.



“**E Stitch**”
 Settings can be specified for “**Stroke**”, “**Interval**” and “**Pitch**”.

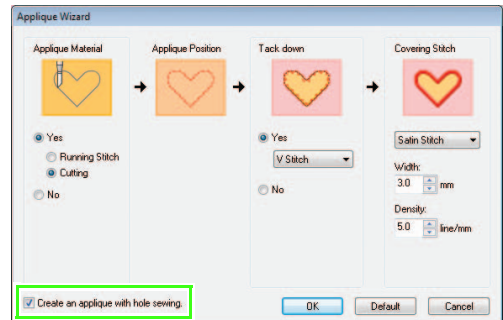


“**V Stitch**”
 Settings can be specified for “**Stroke**”, “**Interval**” and “**Pitch**”.

Memo:

For details on setting “**Stroke**”, “**Interval**” and “**Pitch**”, refer to “**E/V stitch**” in “**Sewing attributes**” of Instruction Manual for PE-DESIGN NEXT.

- 7 Specify hole sewing in “**Create an applique with hole sewing**”.

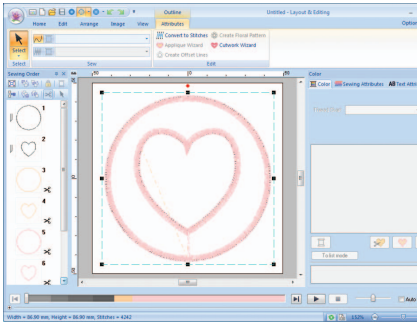


- Select this check box when creating an appliqué with holes (empty regions).
 This check box appears only when an outer pattern with hole sewing applied was selected.
 For this example, select this check box.

Memo:

To return all parameters to their default settings, click “**Default**”.

- 8 Click **“OK”** to exit the Applique Wizard.



Memo:

- The shape of appliqué material appears as below, depending on the **“Create an applique with hole sewing”** is checked or not.



When the **“Create an applique with hole sewing”** check box is cleared



When the **“Create an applique with hole sewing”** check box is selected

- Uncut sections will remain in cutting lines specified with the Applique Wizard. Be sure to cut them with scissors after embroidering is finished.

